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Jan. 28 Dale Dry Lake area, San Bernardino Co., Calif.

This morning at 0845 Frank Awbrey, Fritz Zacbot, Mark Kohn + I left UCR. Just north of San Bernardino we discovered Mark's sleeping bag had blown off the car rack we were using. We retraced our steps without finding it, so I picked up an extra one at home. We finally got underway at 1000. We drove through Hesperia, Lucerne Valley to Old Woman Springs. Two Uta stansburiana were seen at 1300 in the sun at this location. At the time, the wind was 7-15 mph. from the S.E.; the air temp. at 30" was 16.5°C; at 1 cm. it was 18.0°C.; soil surface temp. was 26.0°C.; relative humidity was 37%. One was sitting on the windward side of a rock pile in the sun. We found a fine Joshua Tree woodland near Giant Rock. It should be quite good for Sceloporus magister. It is 11 miles north of the junction of Old Woman Springs Road and 29 Palms Road (between Joshua Tree and Yucca Valley). We reached Dale Dry Lake at 1620, then climbed one of the low hills to the S.E. No Uma scoparia tracks (or any other reptile tracks) could be found, although numerous bird + mammal tracks were visible. It appears that all the reptiles are currently hibernating here.

Mayhew 1960

Journal

Jan. 28 Dale Dry Lake area, San Bernardino Co., Calif.

I failed to mention that we blew a left rear tire just before ~~we~~ we entered 29 Palms, so had to acquire a new one there. When we prepared camp tonight at 2000, we found one of the cots didn't have any end sticks. All in all, it was a bad day for every-one. We drove 227 miles today. Minimum temp. tonight was 36°F. (2°C.).

Jan. 29 We arose at 0800 and ate breakfast. We looked for tracks of lizards again this morning without success. A large number of annuals are just through the ground. I marked out a 1 yard square area & divided it into 9 1-foot square quadrates. Then I counted the annuals in each quatratt. The count was as follows: 35, 29, 76, 51, 43, 32, 84, 74, and 59. The average was 53 plants / ft.^{2} After obtaining our soil sample at station IV, we dug out a rodent burrow to see if any animals were present. We traced it out about 15 feet, but found no animals. The greatest depth we followed it was 27". At that depth, the soil temp. was 10.8°C. The soil was quite moist at that depth. We ate lunch on some rocks that over-look the Coxcomb Mts. Here we caught 2 Uta stansburiana (1♂, 1♀) and saw 7 others. These were caught at 1335 & 1340.

Dale Dry Lake area San Bernardino Co., Calif 28
I failed to mention that we threw a
light near Lone Point before we
entered 29 Palms so had to carry
a rod one way. When we prepared
camp tonight at 2000, we found one of
the cats didn't track any, and [illegible].
All in all, it was a bad day for every
one. We drove 227 miles today. Minimum
temp. tonight was 36°F (2°C).
We arose at 0730 and ate breakfast. 29
We looked for tracks of lizards again
this morning without success. A large
number of annuals are up through
the ground. I marked out a 1 yard square
area & divided it into 9 1-foot square
quadrats. Then I counted the annuals in
each quadrat. The count was as follows:
25, 29, 15, 21, 43, 32, 84, 75, and 64. The
average was 43 plants / ft². After eating
more sand samples at station, then we dug
out a rodent burrow to see if any
animals were present. We traced it out
about 12 feet, but found no animals. The
greatest depth we followed it was 27"
at that depth, the soil temp. was 10.8°C.
The soil was quite moist at that depth.
We ate lunch on some rocks that [illegible]
[illegible] the [illegible]. Into these we caught
2 Uta stansburiana (14, 15) and two of

Mayhew
1960

Jan. 29

Glamis area, Imperial Co., Calif.

Then we drove through Desert Center to Blythe, and then to Glamis. (The air temp. (30") at Blythe (1535) was 23.0°C.) We reached Glamis at 1730. after eating supper, we tried to night collect between the two canals, but didn't see a thing. The driving took place between 2000 and 2100. We went to bed on Dune Crest at 2400. We drove 194 miles today. Maximum temp. today was 65°F., minimum temp. tonight was 52°F. (11°C.).

Jan. 30

We arose at 0800 and ate breakfast. Quite a few Uma notata tracks were visible on the sand, but nearly all of them had been made by very young animals. We looked for lizards from 1000 to 1245. The first Uma was seen at 1005 (juvenal). at that time the air temp. (30") was 18.0°C.; at 1cm it was 18.8°C. soil surface temp. was 20.0°C. This animal was not captured. During the 2 3/4 hour period we saw 24 animals and captured 8 of them. However, all but one of the 24 were juvenals. The other animal appeared to be about 1/2 grown. Cloacal temp. were obtained and the animals were released. No adults or their tracks were seen. Helianthus tephrodes (formerly niveus) was still in bloom in some areas.

Frank dissected a sand hummock to see

Glamis area, Imperial Co. Calif. 9

Then we drove through Desert Center to Blythe, and then to Glamis. (The air temp. (30") at Blythe (1235) was 23.0°C.) We reached Glamis at 1730. After eating supper, we tried to night collect between the two canals, but didn't see a thing. The driving took place between 2000 and 2130. We went to bed on dune crest at 2400. We drove 198 miles today. Maximum temp. today was 64°F, minimum temp. tonight was 52°F (11°C.)

We woke at 0840 and ate breakfast. 0
Quite a few lizard tracks were visible on the sand, but nearly all of them had been made by very young animals. We looked for lizards from 1000 to 1245. The first lizard was seen at 1005 (juvenile). At that time the air temp. (30") was 18.0°C; at 1cm "it" was 18.8°C, and surface temp was 20.0°C. This animal was not captured. During the 2 3/4 hour period we saw 24 animals and captured 8 of them. However, all but one of the 24 were juveniles. The other animal appeared to be about 1 1/2 years. Cloacal temp. was obtained and the animals were released. No adults or their tracks were seen. Holbrookia [illegible] (juvenile) was still in blown sand dunes.

Jan. 30

Glamis area, Imperial Co., Calif.

what insects could be found there. The hummock was approximately 1' X 2' X 4'. Several kinds of beetles were found, as well as some sand crickets & 2 specimens of animals that looked like greatly enlarged sow bugs. We dug our soil sample.

We left Glamis at 1315. After collecting a soil sample at Palm Springs, we camped at the entrance to UCR's Deep Canyon Station. We reached that spot at 1745. We went to bed at 2230. We drove 150 miles today. Maximum temp. today was 77°F., minimum temp. tonight was 46°F.

Jan. 31

Idyllwild area, Riverside Co., Calif.

We arose at 0800. After breakfast, we drove to Idyllwild to check on campsites for the field zoology class. We looked at Riverside County Park, which is a good possibility. We also looked at our lots in Pine Cove to see if we might be able to trap animals there. We tried to get to public campgrounds north of Pine Cove, but the dirt roads were to wet & icy to get through. We reached UCR at 1435 after driving 103 miles today. The total milage for the trip was 674 miles. Mark's sleeping bag had been turned in to the San Bernardino police while we were gone.

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Mayhew
1960

Feb. 15

Dale Dry Lake area, San Bernardino Co., Calif.

This morning at 0855 Frank Aubrey & I left UCR. We reached our collecting site at 1100. The last house on 29 Palms Highway is only 3.4 miles west of our site (corner of Iron Age Mine Road & 29 Palms Highway). No reptile tracks could be found, but there were numerous mammal tracks visible. There was evidence of a very strong wind (or winds) having blown since our last trip. We could find no trace of reptiles anywhere, so we gathered our soil samples & ate lunch. Although it was a beautifully clear, calm day, the temperature was rather low:

time-1110: air temp. (30") - 14.2°C.
" " (1cm) - 14.5°C.
soil surface temp. - 28.2°C.

There are lots of Dithyrea, Hesperocallis, & Oenothera above ground, but few blossoms yet. We left Dale Lake at 1220 and drove toward Glamis.

Glamis area, Imperial Co., Calif.

We saw lots of Oenothera claviformis in bloom at the southern boundary of Joshua Tree National Monument. In Box Canyon, along Highway 195, we saw the following in bloom (5 mi. E. of Mecca):

Isomeris arborea
Mohavea confertiflora
Oenothera claviformis

Feb. 15 Glamis area, Imperial Co., Calif.

Oenothera brevipes
Nama demissum
Eschholtzia glyptosperma

We reached our campsite near Glamis at 1915. We tried to night collect along the way, but no animals were to be found. We drove 323 miles today. The maximum temp. we encountered today was 19°C. (66°F.), the minimum temp. tonight was 8°C. (46°F.).

Feb. 16 We arose at 0730 and ate breakfast. We watched Navy planes bombing + strafing their near-by target areas until the temperatures rose somewhat. We began looking for lizards at 1015. The first lizard we saw (juvenal Uma notata) was spotted at 1018. It was under the surface of the sand in the open. At that time weather conditions were as follows: relative humidity - 37%

air temp. (30") - 16.2°C.
" " (1cm) - 20.0°C.
soil surf. temp. - 29.8°C.
wind - NW, 1-3 mph.
no overcast

The cloacal temp. of this animal was 27.3°C. We searched for animals from 1015 to 1225 (time out for obtaining soil samples). After lunch, we searched from 1300 to 1530. During the day we caught 21 lizards

Feb. 16

Glamis area, Imperial Co., Calif.

that we kept. We caught several others, took their temperatures, & released them. The animals retained were:

Uma notata – 14 (7 ad ♂; 1 im. ♂; 2 ad ♀; 4 im. ♀)

Urosaurus graciosa – 7 (5 ad ♂; 2 ad ♀)

Both of these species were fairly abundant today, particularly after 1300. Several adult Uma notata were caught under bushes that we felt we had uncovered with our probing. They were quite cool & made little or no effort to escape. The large number of reptile tracks in the sand indicated that they are becoming quite active again. A very strong wind has blown through the area since our last trip (Dune Crest Drive is completely covered with sand in two places — some spots as deeply as 2 ft.), so the reptile tracks are fairly new. We left the collecting area at 1540, but stopped several times before reaching Brawley to look at wildflowers. (Incidentally, only 2 very ragged blossoms were found on Helianthus tephrodes this month. Many new plants of this species are coming up now.) Some of the species found in bloom are:

Oenothera clavaeformis   Abronia villosa
Dithyrea californica   Larrea divaricata
Hesperocallis undulata   Palafoxia linearis

Feb. 16 Glamis area, Imperial Co., Calif.

Plantago sp. a small borage.

Some plants were in bloom even at Squeaky Springs and Truckhaven! However, we didn't stop to try to identify them. We reached UCR at 1915 after driving 170 miles today. The entire trip covered 493 miles. Maximum temp. today was 25°C. (77°F.). The trip was made in #241 ('58 Chev. station wagon).

Feb. 23 Palm Springs area, Riverside Co., Calif.

Frank Awbrey & I left UCR at 0845 in #325 ('59 Ford station wagon) to get our monthly soil sample near Palm Springs. We stopped along the old highway between Garnet & 1000 Palms to check on the wildflowers blooming in that area. Some of the hillsides already are yellow from blooming Encelia canescens. In addition, these species also were seen in bloom:

Plantago purshii — Brassica sp.
Oenothera clavaeformis — Cryptantha or Plagiobothrys sp.
Abronia villosa — Eriogonum sp.
Dithyrea californica — a small borage
Nama demissum — a couple of grasses
Larrea divaricata

After driving to UCR's station in Deep Canyon to check progress on the fence (no action at present), we returned

Mayhew
1960

Feb. 23 Palm Springs area, Riverside Co., Calif.

to Palm Springs. We reached the collecting site at 1340. after obtaining the soil samples, we looked around for Uma inornata. Two juvenals were seen, but no immatures or adults. A few Uma tracks were visible, but none of animals of any large size. The weather was quite cool while we were there (air temp. [30"] of °C.) and a brisk breeze was blowing. Consequently, we didn't really expect to find any active reptiles. Human tracks, as well as bird & small mammal tracks were seen, so the reptiles probably haven't been active in any numbers since the last wind storm in the area. We returned to UCR at 1515, after a trip of 156 miles.

Feb. 25 Riverside area, Riverside Co., Calif.

Frank Awbrey & I left UCR at 1055 to look for Sceloporus orcutti and Sceloporus occidentalis. We stopped first in the Bernasconi Hills (2 miles W. of Lakeview) to look for animals. We looked from 1120 to 1220 without seeing a trace of a lizard. The air temp. (30") at this time was 15.8°C. The sky began to cloud over & a southerly breeze sprang up, causing the temp. to drop. The remainder of the afternoon was spent looking for likely collecting areas for these

Feb. 25 Riverside area, Riverside Co., Calif.

two species of lizards. Many good areas with adequate access roads were found around Lakeview, Nuevo, Homeland, Romoland, Moreno, etc. We returned to UCR at 1445 after a trip of 75 miles.

Mar. 7 Dale Dry Lake area, San Bernardino Co., Calif.

This morning at 0705 Frank Awbrey + I left UCR in 014 ('60 Rambler station wagon) for collecting site #IV. One Uta stansburiana was captured near Morongo Valley enroute. The first Uma seen at Dale was spotted at 0950. We looked for animals from 0950 to 1100. During that time we saw only 6 animals. One of these was captured, and released. We were unable to capture any of the others. After getting our soil samples between 1100 and 1110, we again looked for lizards. Between 1110 and 1130 we saw and captured 1 Uma scoparia. At 1115 we saw a young Crotalus cerastes partially covered by sand at the base of a creosote bush. The soil surface temp. at that time at the animal's location was 31.4°C., the air temp. (30") was 22.2°C. We ate lunch from 1130 to 1155, then looked for lizards from 1155 to 1400. During this time we saw 19 Uma scoparia + caught 10. We also saw 2 juvenal Callisaurus draconoides. Few Uma became active much before noon. Our impression is that many of these animals are still

Journal

Mar. 7

Dale Dry Lake area, San Bernardino Co., Calif.

hibernating. Probably only those animals that hibernated in exceptionally good locations have come out of hibernation yet. It was interesting to note that relatively few young animals were seen today. We left the collecting site at 1410.

Plants seen in bloom between Dale Dry Lake & 29 Palms were as follows:

Dithyrea californica	a borage
Oenothera deltoides	Astragalus sp.
Abronia villosum	Lupinus sp.
Isomeris arborea	Brassica sp.
Rafinesquia californica	
Hymenoclea salsola	2 unidentified
Malacothrix californica	Species.
Nama demissum	
Oenothera claviformis	
Plagiobothrys or Cryptantha	
Oenothera brevipes	

Many of the hillsides in the southern portion of Joshua Tree Natl. Monument were bright yellow from dense stands of Oenothera brevipes. Numerous other plants were in bloom in the same area, but we didn't have time to stop and investigate thoroughly. We reached the Highline Canal east of Brawley at 1830.

Glamis area, Imperial Co., Calif.

We began night collecting at 1830, but found only 1 adult ♂ Coleonyx variegatus

Mayhew 1960

Journal

Mar. 7

Glamis area, Imperial Co., Calif.

before we stopped for the night at 2015. We drove 323 miles today. The maximum temp. we encountered today was
The minimum temp. tonight was 61°F. The animals caught today were:

Uta stansburiana – 1 (ad ♂)
Uma scoparia – 11 (5 ad ♂; 3 ad ♀; 2 ad? ♂; 1 im. ♀)
Coleonyx variegatus – 1 (ad ♂)
Total – 13

Mar. 8

We arose at 0800 (temp. [30"] – 70°F.), and ate breakfast. We broke camp at 0910 and looked for lizards from 0920 to 1200. Soil samples were obtained from 1220 to 1230. We resumed our search for lizards from 1230 to 1410. The first Uma notata was seen at 0855, but they probably were active earlier than this. We caught the following animals today (total for day – 36):

Coleonyx variegatus – 1 (ad ♂)
Urosaurus graciosa – 17 (11 ad ♂; 6 ad ♀)
Uma notata – 18 (6 ad ♂; 5 ad ♀; 3 ad? ♀; 2 im ♂; 2 im ♀)

These animals were most numerous shortly after we began looking at 0920. We captured 10 animals in the 1st two bushes (Eriogonum deserticola) we investigated. Although animals were still being seen occasionally when we quit, they weren't nearly as abundant on the surface as they had been earlier. The maximum air temp. (30") was only 90°F. today, which is

Mayhew
1960

Journal

Mar. 8

Glamis area, Imperial Co., Calif.

entirely tolerable to these animals later in the season. The maximum soil surface temp. we recorded today was only 49.6°C., which also is tolerated by these lizards later in the year. 50 animals were caught on the trip.

Plants in bloom in the dunes are:

Palafoxia linearis
Helianthus tephrodes
Croton californica

We left the collecting area at 1435 after eating lunch.

Plants in bloom between Dunes & Highline Canal:

Oenothera deltoides
Oenothera clavaeformis
Dithyrea californica
Hesperocallis undulata
Abronia villosum
Larrea divaricata
Cryptantha or *Plagiobothrys*
Palafoxia linearis
Mentzelia
Nama hispidum
Eriogonum sp.
Plantago
3 unidentified species

We reached UCR at 1855, after a trip of 168 miles today & 491 miles for the entire trip. We are quite pleased with the way the '60 Nash station wagon performed on this trip.

Mayhew
1960

Mar. 10

3 mi. N.W. of Palm Springs, Riverside Co., Calif.

Frank Awbrey & I left UCR at 0830 in car # 241 ('58 Chev. station wagon) for this collecting site. We reached the location at 0930. We began looking for lizards immediately, and continued to look for them until 1245. After lunch (1245 to 1330), we collected our soil sample (1330 to 1345), then looked for lizards from 1345 to 1500. A fairly large number of Uma inornata are now active in this location. Numerous tracks were seen, as well as many animals. Most of them were active from 1000 to about 1230. An adult Crotalus cerastes was found on the collecting site today. The following animals were captured and returned to UCR today:

Sceloporus magister – 1 (ad. ♂)
Callisaurus draconoides – 2 (ad. ♂)
Uma inornata – 17 (6 ad ♂; 6 ad ♀; 1 ? ♂; 3 im. ♂; 1 im. ♀)

Thus, 20 animals were retained, 4 of which will be sent to Alvin Earle at Boulder, Colo. We left the collecting area at 1505, and reached UCR at 1556, after driving a total of 87 miles. The maximum temp. today was 29°C. (84°F.).

Mar. 14

Riverside area, Riverside Co., Calif.

At 0945 Frank Awbrey, Walt Moberly & I drove out to look for Sceloporus orcutti & Sceloporus occidentalis.

Journal

Mar. 14

Riverside area, Riverside Co., Calif.

We started looking a short distance east of Moreno. The 1st *Sceloporus orcutti* was seen on a rock in the sun at 1010. They may have been active earlier, but we didn't reach their habitat until then. At that time, air temp.(30") was 19.0°C., rock surface temp.(sun) was 31.0°C. Numerous *Sceloporus orcutti* were seen from then until 1415. By that time temps. had cooled sufficiently to cause these animals to retreat to their underground (or underrock) locations for the rest of the day. *Sceloporus occidentalis* were seen only from 1245 to about 1400. It may have been that we weren't in good *Sceloporus occidentalis* territory the rest of the time. Animals caught today:

Uta stansburiana — 2 (1 ad ♂; 1 ad ♀)
Sceloporus occidentalis — 3 (ad. ♂)
Sceloporus orcutti — 6 (3 ad. ♂; 1 ad. ♀; 2 im. ♀)
Total — 11

We found some excellent looking area for these two species of *Sceloporus* N. W. of Perris. (Turn off Highway 395 at Markham St. — just S. of March Air Force Base.) Hills are low, but quite rocky. We returned to UCR at 1615 after a trip of 75 miles today. We were in #310, a Nash Rambler sedan.

Mayhew 1960

Mar. 17

Mojave Desert, San Bernardino Co., Calif.

At 0830, Frank Vasek, Frank Awbry & I left UCR for a 5-day trip to investigate land that the University might obtain for desert research. We drove through Little Morongo Valley to 29 Palms, then east past Dale Dry Lake to the Rice area. We checked on a section of sandy land near Rice, then drove north across Danby Dry Lake to Cadiz. After gasing up at Amboy, we drove north to Kelso to eat. We spent the night at Kaiser's old Vulcan Mine. Minimum temp. tonight was 42°F. During the night a wild burro awoke us with its braying about 100 yards from our camp. We drove 272 miles today (in #1223 - a 1952 Chev. carry-all).

Mar. 18

We left Vulcan Mine & drove east over the edge of the Providence Mts., then turned north along the eastern edge of the Providences. We ate lunch near Granite Well, just N.W. of Wild Horse Canyon. Then we drove east past the Grotto Hills, then N.W. to the southern edge of the New York Mts. Frank Vasek was quite sick by this time, so we drove out to Ivanpah, and ran out of gas about 3 miles from Highway 91. We used our can of white

Mar. 18 Mojave Desert, San Bernardino Co., Calif.

gas to get us to the station at Desert City. We bought enough gas there to get us to a Standard station at Halloran Wells (the Standard station at Stateline was out of gas). We were taking Frank back to Riverside, but he began to feel better by the time we reached Baker, so we turned north at that point & camped near Silurian Dry Lake at the old site of Renoville. We drove 188 miles today. Minimum temp. tonight was 41°F. Frank was feeling pretty good by the time we went to bed.

Mar. 19 We drove north this morning to look at a couple of sections along the Amargosa River. Then we drove N.E. toward Tecopa Pass, after which we drove north of the Kingston Range, then east to Mesquite Dry Lake. We had a difficult time getting out of Mesquite Dry Lake. The road disappeared, & we had to climb out of the valley along a stream bed. We eventually reached a powerline road. This was a good road, but had a locked gate on it. We had to back-track over 1/4 mile and drive around the gate. We gassed up at Halloran Wells again, then drove to Ivanpah Dry Lake to spend the night.

Mayhew 1960

Mar. 19 Mojave Desert, San Bernardino Co., Calif.
We camped at Yates Well at the edge of the dry lake. Minimum temp. tonight was 28°F. We drove 160 miles today.

Mar. 20 We arose at 0630 and checked sections on or near Ivanpah Dry Lake. We drove through Desert to Nipton to Ivanpah. Then we went through the New York Mts. again, but turned east toward the Nevada border. We eventually reached Castle Buttes & Indian Spring in the New York Mts. Then we retraced our route to Ivanpah. We drove from there to Cima, and then to Halloran Springs for gas. After refueling we returned toward Cima, but camped in Joshua tree woodland a few miles north of Cima. We drove 144 miles today. We camped for the night at 2155. Minimum temp. tonight was 46°F.

Mar. 21 We drove toward Cima this morning, checking several sections of Joshua tree woodland. Before reaching Cima, however, we turned west and headed for the lava beds north of the Kelso Mts. After eating lunch in the lava beds, we drove around the Old Dad Mts. toward Baker. This road was in much worse shape than it had been two years ago. It took us over an hour to drive ~5 miles. After refueling at Baker, we returned to Riverside.

Mar. 21 Mojave Desert, San Bernardino Co., Calif.

We reached UCR at 2040, after driving 227 miles today. We drove a total of 991 miles on the entire trip.

Mar. 28 Deep Canyon area, Riverside Co., Calif.

Walter Moberly, Frank Aubrey & I left UCR at 0910 in the '52 Chev. carry-all (1223) for the Coachella Valley. I had seen 4 Dipsosaurus dorsalis active on March 24th, so we were trying to get some. There were strong winds blowing on the desert today, however, so not many animals were active. One adult Dipsosaurus dorsalis was seen all day (we caught it). The first Crotaphytus wislizeni we've seen this year was captured today. We returned to UCR at 1540, after driving 143 miles today.

April 2 Mojave Desert, San Bernardino Co., Calif.

Frank Aubrey & I left UCR at 0720 with 25 Field Zoology students. We reached the Mojave River, 3 miles north of Cedar Springs at 0830. Spring apparently has not arrived in this region yet. Few leaves are to be seen on any deciduous tree. Very few birds were seen during our stay. The wind was rather strong, which may have partly explained the rather small number of birds seen or heard.

Mayhew
1960

Apr. 2

Mojave Desert, San Bernardino Co., Calif.

A lot of Sceloporus occidentalis and Uta stansburiana were active in the middle of the day. We left this area about 1230 and drove into the conifers about 1 mile south of Cedar Springs. All the deciduous trees along the stream lacked leaves. The situation is quite different than a year ago when all of these trees were covered with leaves at this time. Almost no birds were found here either. At 1300 we drove to Hesperia, then began looking for reptiles in Joshua tree woodland. No animals were found active near Hesperia. I took 1/2 of the class through Phelan on our way to Lovejoy & Saddle-back Buttes. No reptiles were seen on the entire route. We passed through the Phelan area about 1400. A couple of Xantusia vigilis & about 3 Uta stansburiana were seen on Saddleback Buttes about 1530. We started for home, but finally saw a Sceloporus magister sunning itself on a Joshua tree at 1645. Several others were seen, & some captured between then and sunset. (One was captured at sunset). I don't know why they had been inactive earlier. The temp. was still within

Apr. 2 — Mojave Desert, San Bernardino Co., Calif.

a couple of degrees (C.) of what it had been during the afternoon. The weather never became very warm (~24°C.) at any time during the day. Frank found essentially the same thing. He found lots of lizards active near Phelan when he reached that area about 1500. He returned to UCR at 1800. We reached UCR at 1945 after driving 203 miles in #023 (1960 Chev. station wagon). Animals caught today were:

Sceloporus occidentalis — 26 (14 ad ♂; 10 ad. ♀; 1 im ♂; 1 im ♀)
Sceloporus magister — 5 (3 ad ♂; 2 ad ♀)
Uta stansburiana — 9 (7 ad ♂; 1 ad ♀; 1 im ♂)
Phrynosoma coronatum — 1 (ad ♀)
Cnemidophorus tigris — 1 (im(?) ♀)
Total — 42

Apr. 3 — UCR area, Riverside Co., Calif.

This afternoon Frank Awbrey & John Ellis went after lizards near UCR. The weather was warm & bright, with no wind. They caught a total of 15 lizards, as follows:

Sceloporus occidentalis — 8 (6 ad ♂; 1 ad ♀; 1 im ♂)
Sceloporus orcutti — 4 (2 ad ♂; 1 ad ♀; 1 im ? ♀)
Uta stansburiana — 3 (ad ♂)

Lots of S. occidentalis were active during their entire outing, but S. orcutti was not overly abundant in the areas they worked.

Mayhew
1960

Apr. 11

Mojave Desert, San Bernardino Co., Calif.

Frank Aubrey, Walter Moberly & I left UCR at 1015 on our monthly collecting trip. The weather was beautiful when we left, but as we approached Yucca Valley, we could see a good sized ~~[illegible]~~ cloud bank in the east. By the time we reached our collecting site at Dale Dry Lake, the sky was completely overcast, and the weather was quite cool for this time of year. We arrived at Dale Dry Lake at 1345. We began to look for lizards, in spite of the weather, at 1355, and continued to look until 1525. During that time the maximum air temp. was 25.8°C. We saw a total of 5 Uma scoparia (all adults). We caught 2 of these (1♂; 1♀). We saw & caught 1 Urosaurus graciosa (adult) & 1 Chionactis occipitalis (imm.). No other reptiles were seen. It appeared the coolness produced by the overcast, and the S.W. wind (9-12 mph), tended to keep the animals inactive. At 1530 we drove east toward Rice to see if we could get out of the wind behind the hills. In spite of our efforts, we were unable to escape the wind. Not one vertebrate (alive) was seen before we reached the Riverside - San Bernardino county line. However, 2 Masticophis flagellum & 1 Phyllorhynchus decurtatus were found DOR. We stopped at the county line to cook

Apr. 11 Mojave Desert, San Bernardino Co., Calif.

dinner at 1720. While there we found a live adult *Crotalus cerastes* about 30 feet from the car. After eating, we began night collecting back toward Dale Dry Lake at 1830. All we found before we reached Dale at 1940 were 2 DOR *Crotalus cerastes* and 1 DOR *Uma scoparia*. We camped near Dale in our usual location at 1940, after driving 149 miles today. Minimum temp. tonight was 54°F. Maximum temp. today was 79°F. A S.W. wind, 10-15 mph (gusts to 23), blew all night, making our camp a rather unpleasant place.

Apr. 12 I arose at 0605 because I was sick, sick, sick of sand in the face. The wind is still blowing as hard as ever, but the clouds have disappeared. The other 2 fellows didn't arise until 0720. After breakfast, we decided to leave the area & return later in the month. We left the region at 0845. 18 miles east of Dale Dry Lake we stopped to look for lizards in a rocky area near the road. Two *Sauromalus obesus* (a pair) were captured here. No other lizards were seen. We drove on to a lunch stop 9 miles north of Desert Center. At this stop we captured:

Dipsosaurus dorsalis—3 (2 ad ♂; 1 im ♂; 2 im ♀)

Apr. 12 Mojave Desert, San Bernardino Co., Calif.

Cnemidophorus tigris - 2 (ad. ♀)
Uta stansburiana - 2 (1 ad ♂; 1 ad ♀)
One Phrynosoma platyrhinos (ad ♂) was found on the road just before the lunch stop. After leaving Desert Center, we drove to Blythe, then south through Palo Verde. Five miles south of Palo Verde an adult Crotalus atrox was seen crossing the road. It was captured and preserved for the field zoology class. We ate dinner at the end of the pavement 12 miles east of Glamis. At 1855 we began night collecting toward Glamis. During the evening (up to 2340) we captured 9 Coleonyx variegatus (5 ad ♂; 4 ad ♀), but saw no other reptiles. We drove 234 miles today. Maximum temp. was 84°F., minimum temp. tonight was 52°F. 20 animals caught today.

Apr. 13 Colorado Desert, Imperial Co., Calif.

We arose at 0700 and ate breakfast. We drove along the road looking for reptiles until 0950. Then we walked through the dunes until noon. After obtaining our soil samples, we looked for lizards again until 1300, then drove to the Coachella Canal where we ate lunch. Then we looked for lizards near the canal from 1450 to 1620. Then we drove to Indio to night collect along Dillon

Mayhew
1960

April 13 Colorado Desert, Riverside Co., Calif.

Road from 1950 to 2215. 3 Crotalus cerastes (one a very small one) were seen on the road during our night collecting, but we didn't bother them. We camped for the night near 1000 Palms. The animals collected today were:

Dipsosaurus dorsalis – 5 (2 ad ♂; 1 im ♂; 2 im ♀)
Uma notata – 28 (14 ad ♂; 9 ad ♀; 1 im ♂; 4 im ♀)
Urosaurus graciosa – 8 (4 ad ♂; 2 ad ♀; 1 ad ?; 1 im ♂)
Uta stansburiana – 1 (ad ♂)
Crotalus wislizeni – 1 (ad ♂)
Phrynosoma m'calli – 1 (ad ♀)
Coleonyx variegatus – 2 (ad ♂)
Total – 46

Maximum temp. today was 93°F., minimum temp. tonight was 54°F. We drove 144 miles.

Apr. 14 We arose at 0645. after breakfast we drove along the old highway, between 1000 Palms to Garnet, looking for reptiles. 3 Phrynosoma platyrhinos (ad ♂), 1 Uta stansburiana (ad ♂) + Urosaurus graciosa (ad ?) were caught along the road. Then we drove to our collecting site 3 miles N.W. of Palm Springs. By the time we arrived, the wind was blowing rather hard. Animals were hard to find and even harder to capture in the wind. Therefore, we returned to Palm Springs and found no wind blowing. We collected along Vista Chino

Apr. 14 Colorado Desert, Riverside Co., Calif.

Road until 1630. We caught the following animals today:

Uma inornata - 9 (4 ad ♂; 3 ad ♀; 1 im ♂; 1 im ♀)
Dipsosaurus dorsalis - 23 (7 ad ♂; 4 ad ♀; 8 ad ?; 1 im ♂; 3 im ♀)
Uta stansburiana - 1 (ad ♂)
Phrynosoma platyrhinos - 4 (ad ♂)
Phrynosoma m'calli - 1 (ad ♀)
Crotaphytus wislizeni - 2 (ad ♀; ad ♂)
Total - ~~40~~ 41

The total captures on the trip were:

Uma scoparia - 2 (1 ad ♂; 1 ad ♀)
Uma notata - 28 (14 ad ♂; 9 ad ♀; 1 im ♂; 4 im ♀)
Uma inornata - 9 (4 ad ♂; 3 ad ♀; 1 im ♂; 1 im ♀)
Dipsosaurus dorsalis - 31 (10 ad ♂; 5 ad ♀; 8 ad ?; 3 im ♂; 5 im ♀)
Phrynosoma platyrhinos - 5 (ad ♂)
Phrynosoma m'calli - 2 (ad ♀)
Crotaphytus wislizeni - 3 (2 ad ♂; 1 ad ♀)
Uta stansburiana - 5 (4 ad ♂; 1 ad ♀)
Urosaurus graciosa - 10 (4 ad ♂; 3 ad ♀; 2 ad ?; 1 im ♂)
Coleonyx variegatus - 11 (7 ad ♂; 4 ad ♀)
Crotalus atrox - 1 (ad ♂)
Cnemidophorus tigris - 2 (ad ♀)
Sauromalus obesus - 2 (1 ad ♂; 1 ad ♀)
Chionactis occipitalis - 1 (im)
Arizona elegans - 1 (im) Total = 113 animals

Seven Crotalus (6 C. cerastes, 1 C. atrox) were seen on the trip. We drove 98 miles today, & 625 miles on the trip. Maximum temp. today was 91°F.

April 21

Dale Dry Lake area, San Bernardino Co., Calif.

Frank Awbrey, Steven Peterson & I left UCR for this collecting site at 0610. We began looking for lizards beside the road at 0815. At 0820 we found the first active lizard (Cnemidophorus tigris). We stopped periodically along the way to capture lizards that were seen from the car. I have never seen so many Dipsosaurus dorsalis in this area before, nor have I ever seen them active this early before. We finally reached our usual collecting site at 1030, just as the wind began to blow. It blew the remainder of the day. An adult Crotalus cerastes was seen under a Larrea divaricata at 1035. It was collected for its reproductive organs. We looked for lizards until 1305, when we stopped for lunch. After eating, we collected our soil sample from this station. At 1405 we began driving east toward Rice to see if we could get out of the wind and perhaps find some animals along the road. We didn't get out of the wind, but we did find some animals. We continued until we were 15 miles east of Dale Dry Lake. At 1700 we stopped looking for lizards and retraced our route toward home.

Mayhew
1960

April 21 Dale Dry Lake area, San Bernardino Co., Calif.

We captured the following animals today:

Uma scoparia – 17 (12 ad ♂; 4 ad ♀; 1 im ♂)
Dipsosaurus dorsalis – 19 (10 ad ♂; 7 ad ♀; 1 ad ?; 1 im ♂)
Cnemidophorus tigris – 4 (3 ad ♀; 1 ad ?)
Uta stansburiana – 3 (2 ad ♂; 1 ad ♀)
Urosaurus graciosa – 5 (4 ad ♂; 1 ad ?)
Sauromalus obesus – 1 (ad ♀)
Phrynosoma platyrhinos – 4 (ad ♂)
Callisaurus draconoides – 1 (ad ♂)
Crotalus cerastes – 1 (ad)
Total – 55

We reached UCR at 2005 after a trip of 235 miles today. Maximum temp. today was 96°F.

April 28 Palm Springs, Riverside Co., Calif.

At 0720 Frank Awbrey & I left UCR in the carry-all for this site. We reached Palm Springs at 0820. We looked for lizards at the end of Via Escuela from 0830 to 0840. The air temp. (30") at this time was only 17.5°C., so we returned to the vehicle. A N.W. wind, 15-20 mph., was blowing, and continued to blow all day. In fact, the velocity increased to about 25 mph. later in the day. We began looking for lizards again at 0945 until 1045. The first lizard was seen at 0955. At 1005 a Crotalus cerastes was seen. We ate lunch from then until 1120, when we began to look for lizards again.

April 28 | Palm Springs, Riverside Co., Calif.

We continued to look until 1415, but moved during this time about 1/2 mile to Vista Chino Road. Better accretion dunes occur here. Another *Crotalus cerastes* was seen at 1210. In spite of the wind and cool weather (maximum temp. today was 74°F.), we captured 12 lizards of 4 species, as follows:

Uma inornata — 7 (4 ad ♂; 3 ad ♀)
Callisaurus draconoides — 2 (1 ad ♂; 1 ad ♀)
Crotaphytus wislizeni — 2 (1 ad ♂; 1 ad ♀)
Dipsosaurus dorsalis — 1 (ad ♂)
Total — 12

Relatively few other animals were seen during our entire stay. *Cnemidophorus tigris* was the only species seen that wasn't captured (besides *Crotalus cerastes*). We left Palm Springs at 1435, and reached UCR at 1535, after a trip of 100 miles.

April 29 | Colorado Desert, Riverside & Imperial Cos., Calif.

The field zoology class (20 of us) left UCR at 1205 today. We stopped for a while on the old highway between Garnet & 1000 Palms. The wind was blowing fairly hard, so few animals were seen. We reached Harper's Well at 1730 and established camp for the night. Mammal traps were set, chow eaten, then we looked for nocturnal animals by Coleman lantern. One *Neotoma* sp. was seen. While sitting around the

April 29 Colorado Desert, Riverside & Imperial Cos., Calif.

campfire a Coleonyx variegatus wandered by & was captured. The animals seen today were: Neotoma sp.

Coleonyx variegatus
Lepus californicus
Uma inornata
Phrynosoma platyrhinos
Callisaurus draconoides
Dipsosaurus dorsalis
Lesser nighthawk
Mourning dove
White-throated swift
Vaux swift

We drove 127 miles today. Maximum temp. today was 78°F.; minimum temp. tonight was 51°F. We hit the sack at 2400.

April 30 We arose at 0615. We ate breakfast and checked the mammal traps. 23 traps had been set & 6 animals were captured:

2 Peromyscus maniculatus
2 Dipodomys deserti
2 Perognathus penicillatus

We left camp at 0735 and hiked to the junction of Carrizo & San Felipe Creeks. along the route (going, coming, & there) we saw:

Red-winged blackbird	Rough-winged swallow
Gambel quail	Western kingbird
Mourning dove	Vaux swift

April 30 Colorado Desert, Imperial Co., Calif.

Callisaurus draconoides
Cnemidophorus tigris
Uta stansburiana
Crotaphytus wislizeni

No muskrats were seen at San Felipe Creek, but their burrows were seen and one complete skull was found beside the stream. More water was flowing in both Carrizo & San Felipe Creeks than I have seen for some time. The water was quite clear, so it isn't likely to have been storm run-off. We returned to the cars at 1100, then left the area. We spent a couple of hours (from 1345 to 1550) at Ramer Lake, north of Brawley, watching birds. Those seen at this location were:

Yellow-headed blackbird	Red-winged blackbird
House sparrow	Black tern
Coot	Gull-billed tern
Barn swallow	Rough-winged swallow
Common gallinule	Fulvous tree duck
Eared grebe	Pied-billed grebe
Western grebe	Ruddy duck
Ring-billed gull	Black-necked stilt
Cinnamon teal	Verdin
Scott's oriole	avocet
White-winged dove	Blue grosbeak
Hudsonian curlew	Cliff swallow
Western kingbird	Loggerhead shrike

April 30 Colorado Desert, Imperial Co., Calif.

A Sceloporus magister was seen on a power pole at the northern city limits of Brawley, but we were unable to catch it. We then drove to the Algodones Dunes. Along the way we saw:

Gambel quail	Roadrunner
Hudsonian curlew	Meadowlark
Brewer's blackbird	Red-winged blackbird
Burrowing owl	Mourning dove
Citellus tereticaudis	Ladder-back woodpecker
Uma notata	Urosaurus graciosa

After camp was established on Dune Crest Drive, night collecting began (at 1925). 33 Coleonyx variegatus were collected between then and 0105, when we stopped for the night. In addition, 7 others were seen but left alone, and 9 were found run over by cars. While night collecting, we also saw:

2 Crotalus cerastes (DOR)	Lepus californicus
Dipodomys deserti	Peromyscus maniculatus
Vulpes macrotis	Phrynosoma m'calli (DOR)

Maximum temp. today was 88°F.; minimum temp. tonight was 65°F. We drove 148 miles today.

May 1 We arose at 0700. We looked for lizards from 0900 to 1215. During this time the following animals were seen:

Callisaurus draconoides	Uma notata
Dipsosaurus dorsalis	Urosaurus graciosa

May 1

Colorado Desert, Imperial Co., Calif.
Crotalus cerastes Crotaphytus wislizeni
Cnemidophorus tigris Leconte thrasher
Mourning dove
We left the Coachella Canal at 1330.
Other species of animals seen on the trip home were: Citellus beecheyi

Phainopepla	Crow
Raven	Turkey Vulture
Red-tailed hawk	Western bluebird
Calif. quail	Prairie Falcon

We returned to UCR via Highway 78 and Warner's Hot Springs. Ocotillo are still in bloom in parts of the Narrows, & agave are just beginning to bloom. We reached UCR at 1915 after driving 199 miles today (474 miles for the trip). Maximum temp. today was 94°F.

69 kinds of animals were seen on the entire trip. They are:

Neotoma sp.	Lepus californicus
Peromyscus maniculatus	Sylvilagus auduboni
Perognathus penicillatus	Citellus tereticaudus
Dipodomys deserti	Citellus beecheyi
Vulpes macrotis	Coleonyx variegatus
Uma inornata	Uma notata
Phrynosoma platyrhinos	Phrynosoma m'calli
Urosaurus graciosa	Callisaurus draconoides
Dipsosaurus dorsalis	Cnemidophorus tigris
Uta stansburiana	Crotaphytus wislizeni
Crotalus cerastes	Sceloporus magister

May 1

Colorado Desert, Imperial Co., Calif.

Mourning dove	White-winged dove
Lesser nighthawk	Red-winged blackbird
Brewer's blackbird	Yellow-headed blackbird
Gambel quail	Calif. quail
Western kingbird	Rough-winged swallow
Cliff swallow	Barn swallow
Vaux swift	White-throated swift
Roadrunner	Hudsonian curlew
Western meadowlark	Burrowing owl
Ladder-back woodpecker	House sparrow
Eared grebe	Common gallinule
Western grebe	Pied-billed grebe
Ring-billed gull	Cinnamon teal
Coot	Ruddy duck
Scott's oriole	Black tern
Black-necked stilt	~~Gull-billed tern~~
Avocet	Greater yellow-legs
Verdin	Blue grosbeak
Loggerhead shrike	Leconte thrasher
Raven	Crow
Phainopepla	Prairie falcon
Sparrow hawk	Western bluebird
Red-tailed hawk	Turkey Vulture
House finch	Forster's tern

The following reptiles were captured on the trip:

Uma notata - 20 (10 ad ♂; 3 ad ♀; 1 im ♂; 2 im ♀; 4 im ?)

Urosaurus graciosa - 4 (1 ad ♂; 3 ad ♀)

Callisaurus draconoides - 8 (3 ad ♂; 5 ad ♀)

Crotaphytus wislizeni - 1 (ad ♂)

May 1 Colorado Desert, Imperial Co., Calif.

Phrynosoma platyrhinos – 2 (ad ♂)
Cnemidophorus tigris – 3 (1 ad ♂; 2 ad ♀)
Dipsosaurus dorsalis – 18 (4 ad ♂; 8 ad ♀; 1 ad?; 5 im ?)
Phrynosoma m'callii – 1 (ad ♀)
Coleonyx variegatus – 33 (19 ad ♂; 14 ad ♀)

Thus, 90 animals of 9 species were handled by members of the class (reptiles).

May 9 Frank Awbrey & I left UCR at 1120 to return to the Glamis area. On the way, however, we stopped along the highway 6 mi. W. of 1000 Palms in Riverside Co., to collect some *Dipsosaurus dorsalis*. We looked for them from 1230 to 1300. Several of them had been seen sunning themselves on boulders just before we stopped. Most of those we captured, though, were in the shade of *Larrea divaricata*. We captured 6 before we drove on. We reached the Highline Canal, east of Brawley, at 1545. We began looking for lizards along the side of the road immediately. We made one slow trip from there to the end of the pavement, 12 mi. E. of Glamis, which we reached at 1908. On this trip during the first 4 miles, 1645 to 1742, we collected 9 *Phrynosoma m'callii* as they sunned themselves on the asphalt at the edge of the pavement. This is by far the most animals of this species we have ever seen in one day. In addition 2 dead animals were found on the road. They had been dead a short time.

May 9 Colorado Desert, Imperial Co., Calif.

After eating chow at the east end of the pavement, we began night collecting toward Glamis at 2000. A *Hypsiglena torquata* was found slightly injured 11 mi. E. of Glamis, but no other animals were seen (except rabbits) until we were west of Glamis. We finally caught 18 *Coleonyx variegatus*, but released one obviously gravid ♀ when we decided we had a large enough sample of ♀. No other reptiles were seen alive, but 2 recently squashed *Crotalus cerastes* were found. We stopped for the night at 2315 on top of Dune Crest Drive. We drove the carry-all 221 miles today. The maximum temp. today was 105°F., the minimum temp. tonight was 74°F.

May 10 We arose at 0500 and ate breakfast. We looked for lizards along the road from 0635 to 1110. We drove first to Glamis, then back through the dunes and between the 2 canals. We only had time to make one pass through the area before it became so hot the animals retreated underground. Some *Callisaurus draconoides* were still active when we left the area, but they were so spooky we couldn't catch any. No *Phrynosoma m'calli* were seen this morning, even though we drove through the area we did so well in last evening. It was getting quite hot by the time we reached that area, however. We left the entire area at 1120.

May 10 Colorado Desert, Imperial Co., Calif.

We drove along the old highway between 1000 Palms & Garnet on the way home, and captured a Dipsosaurus dorsalis, the only reptile we saw. We reached UCR at 1600 after driving 175 miles today, & 396 miles for the entire trip. Maximum temp. today was 109°F. Total captures for the trip were:

Uma inornata — 1 (ad. ♂)
Uma notata — 17 (11 ad ♂; 5 ad ♀; 1 im ♂ [released])
Phrynosoma m'calli — 9 (3 ad ♂; 6 ad ♀)
Hypsiglena torquata — 1 (♂)
Callisaurus draconoides — 5 (4 ad ♂; 1 ad ♀)
Urosaurus graciosa — 1 (ad ♂)
Coleonyx variegatus — 18
Dipsosaurus dorsalis — (1000 Palms) — 7 (4 ad ♂; 3 ad ♀)
" " (Glamis) — 8 (3 ad ♂; 3 ad ♀; 2 im. ♂ [released])
" " (Total) — 15 (7 ad ♂; 6 ad ♀; 2 im ♂)

Total animals captured — 66
" " released — 3
" " retained — 63
No. species represented — 8

May 14 Coachella Valley, Riverside Co., Calif.

The field zoology class left UCR at 0715, stopping for a while along the old highway between 1000 Palms & Garnet. We looked for animals along this highway from 0815 to 0900. Then we crossed the new highway & stopped on Ramon Road at 1000 Palms. The wind was blowing rather strongly

May 14 Coachella Valley, Riverside Co., Calif.

all morning (gusts to over 35 mph were recorded). Very few animals were seen at this location (a few Dipsosaurus dorsalis), so we drove on to Vista Chino Road in Palm Springs, arriving at 1035. Large numbers of Dipsosaurus dorsalis and a few Uma inornata were seen or captured at this site in spite of the wind. We left this area at 1200 and started up Highway 74 from Palm Desert. One stop was made at about 2000 feet elevation where 1 Uta stansburiana, 1 Sauromalus obesus, & 1 Crotaphytus collaris were captured. Sceloporus occidentalis & Sceloporus orcutti were seen but not captured. Then we drove on to Pinyon Flats for lunch (1400 to 1430). The wind was so strong here we didn't look around for animals. We reached Idyllwild at 1530 and set up camp in the Idyllwild Co. Park. The sky became overcast during the evening, but no rain fell. The minimum temp. tonight was 38°F. We drove 137 miles today.

May 15 Idyllwild Area, Riverside Co., Calif.

We arose at 0700. No mammal traps had been set the previous night because of the number of

May 15

Idyllwild Area, Riverside Co., Calif.

children in the area, so no traps had to be checked this morning. Fog rolled in early, so we left the park at 0845 & drove to Marion Mt. campground. We hiked up the trail toward the top of Marion Mt. about one mile, looking for birds & *Sceloporus graciosus*. On the way back to the cars we found 3 *Crotalus viridis* within 10 feet of each other on a rocky outcrop near the trail. We captured the largest one (46½") for the student collection, but the other two escaped in the rocks. The large one was in sight over ½ hour, however, because it took me that long to make a round trip to the car for the snake collecting equipment. We hadn't carried the gear along because we thought it was too cold for rattlers to be active yet. When these were sighted at 1130, air temp. (30") was 9.5°C., air temp. (1 cm) was 16°C., rock surface temp. was 32°C. We returned to the cars, ate lunch, then started for UCR 1330. We reached UCR at 1445, after driving 66 miles today, & 203 miles on the entire trip.

May 15 Idyllwild Area, Riverside Co., Calif.

The following animals were captured on the trip:

Crotalus viridis - 1 (ad ♂)
Crotaphytus wislizeni - 2 (ad ♀)
" collaris - 1 (ad ♂)
Sauromalus obesus - 1 (ad ♂)
Uta stansburiana - 1 (ad ♂)
Sceloporus graciosus - 4 (2 ad ♂; 2 ad ♀)
Phrynosoma platyrhinos - 1 (ad. ♂)
Uma inornata - 2 (ad ♂)
Dipsosaurus dorsalis - 51
Total - 64

Animals seen imbedded in tar at edge of pavement 6 mi. N.W. of 1000 Palms:

Crotalus cerastes - 6
Phyllorhynchus decurtatus - 1
Dipsosaurus dorsalis - many
Cnemidophorus tigris - several
Callisaurus draconoides - some
Phrynosoma platyrhinos - few
Crotaphytus wislizeni - few
Masticophis flagellum (probable)
3 birds, one of which was a thrasher.

Dipsosaurus dorsalis was most abundant, then Callisaurus draconoides, then Crotalus cerastes, followed by Phrynosoma platyrhinos.

The following animals were seen at some time on the 2-day trip:

May 15

Idyllwild Area, Riverside Co., Calif.

Meadowlark	House sparrow
Crow	House finch
Brewer's blackbird	Mourning dove
Barn swallow	Tree swallow
Citellus tereticaudis	Citellus beecheyi
Crotaphytus wislizeni	Dipsosaurus dorsalis
" collaris	Uma inornata
Phrynosoma platyrhinos	Sceloporus orcutti
Uta stansburiana	" occidentalis
Sauromalus obesus	Sciurus griseus
Sceloporus graciosus	Crotalus viridis
Masticophis flagellum	Oregon junco
Red-breasted sapsucker	Purple finch
Audubon warbler	Mt. chickadee
Clarke nutcracker	Sparrow hawk
Calif. quail	Mt. quail
Rock wren	Black-throated sparrow
White-throated swift	Western bluebird
Common cowbird	Band-tailed pigeon
Black phoebe	Western wood pewee
Song sparrow	Steller's jay
Western tanager	Black-headed grosbeak
Acorn woodpecker	Robin
Mockingbird	

A total of 47 species were seen on the trip. Sixteen of us made the trip (14 students, Frank Awbrey & I). The temp. on the entire trip was quite cool; ex: maximum air temp. we found today was 11°C.

May 20 Mojave Desert, San Bernardino Co., Calif.

The field zoology class (6 members + a visitor), Frank Aubrey + I left UCR at 1145 and drove to Hesperia. After eating, we drove on to Lucerne Valley, then north to the Ord Mts. We checked a spring on sec. 36, T 7 N, R 1 W, but it didn't look at all good for our purposes. We drove on to Stoddard Valley to our campground 8 miles south of Barstow collecting reptiles along the way. We reached the campsite at 1600. We began looking for reptiles immediately. A few _Uta stansburiana_ were seen but not caught. An adult ♂ _Crotalus mitchelli_ was captured on the west-facing slope of a hill about 150 yards S.E. of the camp. We looked for animals until 1715. We ate chow, then started to night collect at 1915. We looked for animals until 2230. A S.W. wind of 10-15 mph. was blowing at our campsite from the time we arrived until we left. Animals seen today were:

Bullock's oriole	Crow
Mourning dove	Raven
House sparrow	Horned lark
Robin	Loggerhead shrike
Killdeer	Western meadowlark
Red-winged blackbird	Brewer's blackbird

May 20 Mojave Desert, San Bernardino Co., Calif.

Rock wren	Say's phoebe
Gambel quail	Black-throated sparrow
Sceloporus magister	Citellus beecheyi
Crotaphytus collaris	" tereticaudis
Uta stansburiana	" leucurus
Cnemidophorus tigris	Phrynosoma platyrhinos
Callisaurus draconoides	Sauromalus obesus
Crotalus mitchelli	Lepus californicus
Hadrurus hirsutus	Pipistrellus sp.
Reithrodontomys sp.	Dipodomys sp.
Crotalus cerastes	

animals caught in traps tonight were:
Peromyscus sp. — 3
Perognathus sp. — 3

Maximum temp. today was 82°F.
Minimum temp. tonight was 55°F.

May 21 We arose at 0645. after eating breakfast, we left the campsite at 0815. We stopped between the campsite and the Barstow - Lucerne Valley Road to look for and mark Gopherus agassizi. We marked 7 of them in this area. We also saw:

Crotalus cerastes	Dipsosaurus dorsalis
ash-throated flycatcher	Callisaurus draconoides
Urosaurus graciosa	Phrynosoma platyrhinos
Horned lark	Masticophis flagellum

We drove slowly toward Lucerne Valley, collecting animals as we travelled. Species captured on the
way we were to say.

May 21 Mojave Desert, San Bernardino Co., Calif.
way were:
Dipsosaurus dorsalis Phrynosoma platyrhinos
Cnemidophorus tigris Crotaphytus wislizeni
after leaving Lucerne Valley, we
stopped for a bit near Giant
Rock, where we caught:
Uta stansburiana Sauromalus obesus
Cnemidophorus tigris
Between 29 Palms & Dale Dry Lake
we saw:
Salvadora hexalepis Uma scoparia
Mockingbird Lesser nighthawk
Barn swallow Swainson's hawk
We set up camp at 1830 24 mi. E.
of 29 Palms near Dale Dry Lake. We
night collected from 1945 to 2315.
animals captured were:
Phyllorhynchus decurtatus - 3 (+1 DOR)
Coleonyx variegatus - 3
We also saw:
Neotoma sp. Dipodomys sp.
Reithrodontomys sp.
animals caught in traps tonight:
Neotoma sp. Perognathus sp.
Dipodomys sp.
Peromyscus sp.
Maximum temp. today was 92°F.
Minimum temp. tonight was 53°F.
Wind was still blowing occasionally
when we went to bed.

May 22 Mojave Desert, San Bernardino Co., Calif.

We arose at 0700 and ate breakfast. at 0900 we began looking for reptiles in the sandy area east of Dale Dry Lake. We caught:

Uma scoparia Dipsosaurus dorsalis
Phrynosoma platyrhinos Urosaurus graciosa

Other animals seen were:

Le Conte thrasher yellow warbler
Red-tailed hawk Turkey vulture
Raven Cliff swallow

We left this area about 1230 and drove into Joshua Tree Natl. Mon. by way of Old Dale. Along the way we caught:

Sauromalus obesus Crotaphytus collaris
Dipsosaurus dorsalis

We reached 29 Palms at 1600, and UCR at 1745. The total trip (in #241) was 539 miles. Maximum temp. today was 90 °F. Total number of species seen on the trip was 55. The total number of reptiles captured on the trip was 95. They were:

Urosaurus graciosa - 4 (2 ♂, 2 ♀)
Callisaurus draconoides - 6 (♂)
Dipsosaurus dorsalis - 10 (♂)
Coleonyx variegatus - 2 (1 ♂, 1 ♀)
Phrynosoma platyrhinos - 6 (5 ♂, 1 ♀)
Salvadora hexalepis - 1 (♂)
Uta stansburiana - 3 (1 ♂, 2 ♀)

May 22 Mojave Desert, San Bernardino Co., Calif.

Phyllorhynchus decurtatus — 3 Crotalus mitchelli — 1 (♂)
Sauromalus obesus — 4 (2 ♂, 2 ♀)
Crotaphytus collaris — 3 (2 ♂, 1 ♀)
Crotaphytus wislizeni — 5 (3 ♂, 2 ♀)
Cnemidophorus tigris — 5 (3 ♂, 2 ♀)
Uma scoparia — 34 (16 ♂, 18 ♀)
Sceloporus magister — 8 (4 ♂, 4 ♀)

Thus, animals of 14 species were caught.

May 26 Palm Springs area, Riverside Co., Calif.

Frank Aubrey & I left UCR in the carry-all at 0745. We reached our collecting site at Windy Point, 3 miles N.W. of Palm Springs, at 0845. No wind was blowing in the area for a change. We looked for lizards from 0845 to 1115. Then we changed the left rear tire because it had sprung a leak. We ate lunch as we drove to Vista Chino Road in Palm Springs. We looked for lizards from 1155 to 1400 in this area. Two adult Hyla arenicolor were captured beside a running faucet and brought to Riverside for the field zoology lab. practical exam. We captured 15 Dipsosaurus dorsalis at this site that we kept, but we caught and released several others. After gathering a soil sample at this location, we left Palm Springs at 1410 and returned to Windy Point for another soil sample.

May 26 Palm Springs area, Riverside Co., Calif.

We left the area at 1500 to return to UCR, which we reached at 1550 after a trip of 101 miles. Animals kept today were:

Uma inornata – 14 (7♂; 7♀)
Urosaurus graciosa – 1 (♀)
Cnemidophorus tigris – 1 (♂)
Dipsosaurus dorsalis – 15 (8♂, 7♀)
Total – 31

June 9 Colorado Desert, Riverside & Imperial Co., Calif.

Frank Awbrey, Walt Moberly, Ray Tolman, Dave Reuther & I left UCR at 1000 for our monthly collecting trip. We collected at Palm Springs for a while, as well as gathering 2 soil samples. After eating lunch we drove to the Glamis area and collected along the road (Used car #240.) until sundown. After eating chow, we night collected from 2030 until 2400. One Crotalus cerastes was seen between the canals. Coleonyx variegatus was the only other reptile species seen tonight. However, 2 miles east of Glamis, 10 kit foxes (Vulpes macrotis) were seen — 8 at one spot. All 8 could be seen at one time in the headlights. There may have been more than that at this spot, but this was all we could count with certainty. Two more were seen about a mile down

June 9 Colorado Desert, Imperial Co., Calif.

the road a few moments later. On the return trip 2 were seen in about the same area. The first animals were seen at 2300 in flat ironwood country. Animals collected today were:

Species

Dipsosaurus dorsalis – 25 (20♂, 5♀) (24 at P.S. 1♂ at Glamis)
Phrynosoma m'calli – 4 (1♂, 3♀)
Uma notata – 10 (6♂, 4♀)
Callisaurus draconoides – 2 (2♀)
Cnemidophorus tigris – 3 (2♂, 1♀)
Coleonyx variegatus – 8 (4♂, 4♀)
Total 52

We drove 243 miles today. Maximum temp. today was 101°F., minimum temp. tonight was 68°F.

June 10 We arose at 0630 and ate breakfast. We looked for lizards from 0740 to 1100. Walt, Ray + Frank walked in the dunes + collected Uma notata, while Dave + I drove the road + collected our Dipsosaurus dorsalis sample. After eating lunch under the bridge on the Coachella Canal, Then we drove east through Glamis to Blythe, then to Desert Center. We stopped 9 miles N. of Desert Center + fixed dinner. Then we night collected to our campsite near Dale Dry Lake. We night collected from 1945 to 2235. The only animals seen at night were: 1 DOR Arizona elegans,

June 10 Mojave Desert, San Bernardino Co., Calif.
1 DOR *Phyllorhynchus decurtatus*, 1 *Coleonyx variegatus*.

Animals caught today were:

Uma notata (Glamis) – 20 (10♂, 10♀)
Dipsosaurus dorsalis (Glamis) – 15 (9♂, 5♀)
Crotaphytus wislizeni " – 3 (2♂, 1♀)
Urosaurus graciosa " – 8 (4♂, 4♀)
Callisaurus draconoides " – 1 (♂) Desert Center – 1 (♂)
Uta stansburiana (Des. Cent.) – 2 (2♀)
Coleonyx variegatus " – 1 (♂)
Total 51

We drove 198 miles today. Maximum temp. today was 100°F., minimum temp. tonight was 70°F.

June 11 We arose at 0645 and ate breakfast. We looked for lizards from 0800 to 1150. Walt, Ray + Frank walked the sand for *Uma scoparia* while Dave + I drove the road for *Dipsosaurus dorsalis*. After obtaining our soil sample at noon, we drove slowly to 29 Palms, looking for lizards along the way. After eating in 29 Palms, we returned to Old Dale + entered Joshua Tree Nat'l. Monument from that direction. Along the way we caught *Sauromalus obesus* and *Crotaphytus collaris*. We ate at Cottonwood Springs, then drove to Indio. We night collected along Dillon Road from 2100 to 2315.

Mayhew
1960

June 11

Colorado Desert, Riverside Co., Calif.

One *Coleonyx variegatus* ran across the road in front of us, + 2 *Crotalus cerastes* were seen on Dillon Road, but nothing was caught. One DOR *Arizona elegans* + 1 DOR *Phyllorhynchus decurtatus* were picked up for Dave. We drove 152 miles today. Maximum temp. today was 101°F., minimum temp. tonight was 72°F. Animals caught today were:

Callisaurus draconoides – 2 (1♂, 1♀)
Uma scoparia – 21 (9♂, 12♀)
Phrynosoma platyrhinos – 4 (3♂, 1♀)
Dipsosaurus dorsalis – 22 (16♂, 6♀)
Crotaphytus wislizeni – 1 (♂)
Cnemidophorus tigris – 1 (♀)
Sauromalus obesus – 12 (9♂, 3♀)
Uta stansburiana – 1 (♂)
Crotaphytus collaris – 5 (1♂, 4♀)
Total 69

June 12

We arose at 0600 (camped near power lines near Garnet) and ate breakfast. We looked for lizards along the old highway from 0715. Then we drove through 1000 Palms to Vista Chino Road in Palm Springs. We collected until 1025, then returned to UCR. We reached UCR at 1145, after driving 73 miles today (666 miles driven on the entire trip). *Uma inornata* seem to be very scarce around the Coachella Valley this spring. Almost

Mayhew
1960

June 12 Colorado Desert, Riverside Co., Calif.

none have been seen this spring in areas where they have been numerous before. apparently last years drought reduced even the adult population. almost no young animals have been seen this year.

animals caught today were:

Urosaurus graciosa - 1 (♀)
Dipsosaurus dorsalis - 6 (2♂, 4♀)
Uma inornata - 11 (9♂, 2♀)
Cnemidophorus tigris - 1 (♀)
Total 19

Dipsosaurus dorsalis are extremely abundant this spring, particularly in the Palm Springs area. We passed up at least 50 this morning that we saw and ignored. They are just about everywhere.

When we returned to UCR we found that 19 animals were dead and 1 was injured:

Uma notata - 3 (1♂, 2♀)
Uma scoparia - 7 (6♂, 1♀)
Coleonyx variegatus - 1 (♂)
Urosaurus graciosa - 1 (♀)
Dipsosaurus dorsalis - 7 (4♂, 3♀)
Total 19

One Dipsosaurus dorsalis was injured. The 3 Uma notata + 1 Urosaurus graciosa had to be thrown away because of their condition, but the rest were in good enough condition to be saved.

Mayhew
1960

June 12

Colorado Desert, Riverside Co., Calif.

Totals collected on the entire trip were:

Species	area	♂	♀	Total
Callisaurus draconoides	Glamis	1	2	3
	Des. Center	1		1
	Dale Lake	1	1	2
		Total		6
Dipsosaurus dorsalis	Palm Springs	21	9	30
	Glamis	10	6	16
	Dale Lake	16	6	22
		Total		68
Phrynosoma m'calli	Glamis	1	3	4
		Total		4
Uma notata	Glamis	16	14	30
	Total	(-2)	(-2)	26
Cnemidophorus tigris	Glamis	2	1	3
	Dale Lake		1	1
	Palm Springs		1	1
		Total		5
Uma inornata	Palm Springs	9	2	11
		Total		11
Coleonyx variegatus	Glamis	4	4	8
	Dale Lake	1		1
		Total		9
Crotaphytus wislizeni	Glamis	2	1	3
	Dale Lake	1		1
		Total		4
Crotaphytus collaris	Old Dale	1	4	5
		Total		5
Uma scoparia	Dale Lake	9	12	21
		Total		21

June 12 — Colorado Desert, Riverside Co., Calif.

Species	area	♂	♀	Total
Uma notata gracilis? *Urosaurus graciosa*	Glamis	4	4 (-1)	8
	Palm Springs		1	1
	Total			9
Uta stansburiana	Des. Center		2	2
	Old Dale	1		1
	Total			3
Phrynosoma platyrhinos	Dale Lake	3	1	4
	Total			4
Sauromalus obesus	Old Dale	9	3	12
	Total			12

Thus, 191 animals of 14 species were caught on the trip. Since 4 had to be thrown away & 1 escaped, 186 animals were able to be used.

July 15 — Blue Ridge Campgd., San Gabriel Mts., Los Angeles Co., Calif.

Thirteen members of the Zoology 113 B class from the Santa Barbara campus of Univ. of Calif., Dr. Mary Erickson & I left the Santa Barbara campus at 1510 and drove up to this location for the night. We arrived about 1930. We ~~set~~ set out mammal traps (12), then ate & went to bed, after looking at the view of the greater Los Angeles basin from up there.

July 16 — We arose at 0430 & checked the traps. Only 1 *Peromyscus maniculatus* was caught. We looked at birds after breakfast until 0800. Species seen were:

Cooper's hawk — ~~Pi~~ Pine siskin

July 16 Blue Ridge Campgd., San Gabriel Mts., Los Angeles Co., Calif.

Townsend Solitaire — Western Bluebird
White-breasted nuthatch — Pigmy Nuthatch
Violet-green Swallow — Cliff Swallow
Green-tailed Towhee — Fox Sparrow
Olive-sided Flycatcher — Steller's Jay
Mountain Chickadee

As we left the area, we captured 19 Sceloporus graciosus & 1 Sceloporus occidentalis.

Mojave Desert, San Bernardino Co., Calif.

We spent a little time at the Mojave River, 3 miles north of Cedar Springs. The river was dry, but a few isolated pools were still present. It was nearly noon, so few animals were active (air temp. - 100°F.). Those seen here were: Sceloporus occidentalis
Masticophis lateralis
Band-tailed Pigeons
Ash-throated Flycatcher
Hyla regilla

We captured 2 Sceloporus magister & 2 Xantusia vigilis as we passed through Hesperia (1 Xantusia was released). We stopped at 15 mile point to demonstrate to the class that no reptiles would be active at that time of the day. After resting for a while in Lucerne Valley, we drove slowly to Stoddard Valley, looking for reptiles on the way.

July 16 Mojave Desert, San Bernardino Co., Calif.

We set out 11 mammal traps at our campsite, then ate dinner. I took two groups night collecting after we ate. In all, I drove 80 miles night collecting. We saw 1 Crotalus cerastes, several Hadrurus hirsutus, 1 Canis latrans, 1 DOR Chionactis occipitalis, & 1 Coleonyx variegatus. We night collected from 2015 to 0110.

July 17 We arose at 0530 & checked the mammal traps. Seven of the 11 traps contained animals (3 Peromyscus sp., 2 Perognathus sp., & 2 Neotoma sp.). After breakfast we looked for Sauromalus obesus (caught 3) & Crotaphytus collaris (caught 3) on the rocky slopes. We also marked a tortoise near the top of a small hill just west of camp that was taken from a burrow occupied last year by a marked animal (#6). Later we marked 2 more Gopherus agassizi in the flat creosote bush scrub near the Barstow-Lucerne Valley Road. We also caught several lizards there (Uta stansburiana, Urosaurus graciosus, Callisaurus draconoides, Cnemidophorus tigris, Phrynosoma platyrhinos). When the animals became inactive near the middle of the day, we returned to Lucerne Valley. After lunch, we head for UCSB, which

July 17 Mojave Desert, San Bernardino Co., Calif.

we reached at 1730. We brought back 56 reptiles of 16 species (2 preserved — *Crotalus cerastes* + *Chionactis occipitalis*). Those brought back were:

Crotalus cerastes — 1
Chionactis occipitalis — 1
Callisaurus draconoides — 9
Cnemidophorus tigris — 6
Sauromalus obesus — 3
Crotaphytus collaris — 3
Crotaphytus wislizeni — 1
Phrynosoma coronatum — 2
Phrynosoma platyrhinos — 2
Xantusia vigilis — 1
Sceloporus magister — 2
Sceloporus occidentalis — 3
Sceloporus graciosus — 19
Coleonyx variegatus — 1
Urosaurus graciosa — 1
Uta stansburiana — 1

We drove 605 miles (including the 80 miles of night collecting).

Aubrey
1960

Journal

July 15 - 22 mi E. of 29 Palms, S. Bdo. Co., Calif.
Walter Moberly, Bob Lagiewski, Bob Fakundiny, & I left UCR at 1350 on our regular monthly collecting trip to 29 Palms & Glamis. The first animal caught was a ♂ Callisaurus draconoides at 1720 at which time the air temperature was 42.8°C. In this same area we also saw a hatchling Phrynosoma platyrhinos and a hatchling Callisaurus draconoides. We caught one Callisaurus, 2 Dipsosaurus, 4 Uma scoparia, and 1 Cnemidophorus tigris this day between 1720 & 1900. Sundown was at 1855 after which we ate dinner and then drove out towards Rice. At 2010 (air temperature = 36.2°C) we saw a Crotalus cerastes on the road. 30 Miles E. of 29 Palms two Coyotes ran across the road and, later on, a kit-fox also crossed the road in ~~front~~ front of us.
We made camp at the usual spot at 2300. Minimum temperature for the night was 29.5°C. A reptile trap was set but yielded nothing.

Journal

July 16 - 22 mi E. of 29 Palms, San Bernardino Co., Calif.

We arose at 0500, had breakfast, and were in the field by 0630. The first animal caught was an adult ♂ *Phrynosoma platyrhinos* at 0625 at which time the air temperature was 33°C. Animals were scarce and the ones we did see were quite wary. Walt Moberly + Bob Fakunding patrolled the road while Bob Lasiewski and I walked out into the dunes. From the car six species were collected but none in great quantities. Collecting was very poor in the field, almost nothing being seen the first hour. The last *Uma scoparia* was caught at 0830 at which time the air temperature was approximately 38°C. *Dipsosaurus* were still active until around 1045 at which time the air temperature was between 42-45°C. We left the area at 1100 and headed for 29 Palms. The air temperature was 45.5°C at this time.

Auffenberg
1960

July 16 - Yuma Sand Hills, Imperial Co., Calif.

After leaving 29 Palms we drove thru Joshua Tree Natl. Mon. and down the north side of the Salton Sea, reaching the Glamis area at 1620. The air temperature at this time was 45.5°C. No lizards were seen until 1830 (Air temp. 42°C) when a ♀ adult *Uma notata* was captured beside the road. Several small *Uma* were caught out in the dunes but no large adults were seen. Sunset was at 1845. We then ate dinner + started night-collecting. At 1930 a very small *Coleonyx* was found on the pavement. (Air temp 38.5°C, Road surface temp.= 43.6°C). At 1945 an adult ♀ *Coleonyx* was taken but, aside from 2 sidewinders, no more reptiles were ~~seen~~ that evening. Three complete runs between the canals were made, all animals being seen on the first of these. We made camp at 2230 in the old gravel pit 8 mi W. of Glamis. Minimum

Journal

Auhrey
1960

July 16 - Yuma Sand Hills, Imperial Co., Calif.

Temperature for the ~~night~~ was 30°C.

July 17 - Yuma Sand Hills, Imperial Co., Calif.

We arose a 0500 this morning, breakfasted, and were in the field before 0630. The first lizard, a ♂ adult Uma notata, was captured at 0610. Temperatures were: (°C) Air 33.5°, 1cm 34.5°, Soil Surface 36.2°. Walt Moberly & Bob Lasiewski patrolled the road in the car and reported that the lizards were extremely skittish. Dipsosaurus would run from the road to a hole as soon as the car stopped, even before anyone got out. In the run between Glamis and the Highline canal only lizards, including one hatchling Crotaphytus wislizenii, were collected. After 1000, when the air temperature exceeded 37.5°C, collecting became very poor. We left the area at 1200. (Air temp: 43°C) We left a lizard trap set near the Coachella canal

Journal

Aubrey
1960

July 17 - Snow Creek, 3 mi N.W. of Palm Springs, Riverside Co., Calif.

A stop was made here on our way home in order to plant a reptile trap on the lee side of a sand hummock. Air temperature was 45°C and a 5-8 mph N.W. wind was blowing. No lizards were seen.

We then returned to UCR, arriving at 1630 after driving 553 miles.

Altogether a total of   lizards were caught, including 16 *Uma scoparia*, 20 *Uma notata*, 1 *Coleonyx variegatus*, 5 *Phrynosoma platyrhinos*, 2 *Cnemidophorus tigris*, 13 *Dipsosaurus dorsalis*,   *Callisaurus draconoides*, 4 *Crotaphytus wislizeni*, and   *Urosaurus graciosus*.

July 23 - Palm Springs - Riverside Co., Calif.
Walter Moberly, Jim Jorgebek, and I left UCR this morning at 0410 PST to take our monthly sample at Palm Springs. At 0505 we stopped at Windy Point to check the trap we had left there last Sunday, July 17. There was nothing in it but insects + spiders so we removed it and continued on to Vista Chino Dr. Sunup was at 0505 and we were in the field by 0540. (Temp = 26.5°C). The first lizard, a ♀ adult *Uma inornata*, was seen at 0615 in the sun on the side of a sand hummock. The temperatures at this time were:

Air 30" — 29.5°C.
Air 1cm - 29.5°C.
Soil Surface - 29.5°C.

At dawn the sky was clear but the humidity was high enough to make it uncomfortable for us. Clouds began to build up over the mountains around us and to extend into the desert until, at 1100, the sky was at least 50% overcast and the sun was partially obscured. By 1030 (Air temp = 38°C) most lizard activity had stopped, possibly because

July 23 - Palm Springs, Riverside Co., Calif.

of the high soil surface temperature (65.5°C). At this time we took a soil sample and then went back out to Windy Point to take our second soil sample. In twenty minutes of searching only one Uma was seen and it was very wary, running down a hole before it could be captured. The time was now 1230 and we gave up and returned to UCR. Several hatchlings were seen today including 5 Uma inornata, 2 Callisaurus draconoides, and 1 Cnemidophorus tigris. Several others were seen but not identified. We arrived at UCR at 1330 after a trip of 101 miles. Total number of animals collected today was 20 including:

8 Dipsosaurus dorsalis
8 Uma inornata
4 Callisaurus draconoides
1 Phrynosoma m'calli.

Maximum temperature was 38°C.

Mayhew
1960

Journal

Aug. 8

Colorado Desert area, Riverside Co., Calif.

At 0910 Frank Awbrey, Bob Lasiewski, Walt Moberly, Ray Folmar, Kurt Pickus, & I left UCR in 2 vehicles (carry-all & 1958 chev. station wagon). We stopped about noon near the Riverside – Imperial Co. line to check over the possibility of setting up an experiment on Uma at Bat Cave Buttes. We walked about a mile to the buttes. One adult ♂ Uma notata was seen & captured, which essentially eliminated the area for consideration for the project we had in mind.

Glamis area, Imperial Co., Calif.

We then drove on to this area to begin collecting. We drove slowly down the road for 1/2 hour between the Highline & Coachella Canals, looking for animals (1540 to 1610). Lots of hatchling Uma notata were seen. Sunset occurred at 1830 and several Uma were caught before that time.

We began night collecting at 1945 by driving in shifts — one crew was on the road all night. Kurt & I drove until 2200; then Walt & Ray drove until 2400; Frank & Bob followed until 0200; finally Kurt & I drove until 0700. Three Coleonyx variegatus hatchlings were seen tonight, as well as 3 Crotalus cerastes (adults). Only a few adult Coleonyx

Mayhew
1960

Journal

Aug. 9

Glamis area, Imperial Co., Calif.

were captured all night, so it was impossible to say that night collecting before dawn is better in summer than collecting early in the evening. We collected 2 Phrynosoma m'calli about 0400, which was quite surprising to us. We drove 175 miles night collecting last night, 366 miles for the entire day. Callisaurus hatchlings were seen.

At least 38 Wood Ibis were seen in trees and on open farm land at 0550 this morning near Ozita Siding. The first Uma was seen at 0625; air temp (30") at this time was 31.6°C. Sunrise was 0505 today. Minimum temp. last night was 82°F., maximum temp. yesterday was 112°F.

We looked for Uma notata from 0745 to 1000, then from 1100 to 1215. We left the area at 1215 and drove east through Glamis to Blythe, then to Desert Center. We stopped at the San Bernardino - Riverside Co. line to fix chow. However, we caught one Sauromalus obesus before we ate (caught at sundown). Then we night collected to our campsite at Dale Dry Lake, stopping at 2050. One Phyllorhynchus decurtatus was caught. We drove 200 miles today.

Mayhew
1960

Journal

Aug. 10

Dale Dry Lake, San Bernardino Co., Calif.

We were able to capture fairly large numbers of *Uma scoparia* this morning. Walt & Kent drove the road looking for animals while the rest of us collected on foot. By noon we had an adequate sample, so we drove to Old Dale, then south to Joshua Tree Nat'l. Monument to look for *Sauromalus* & *Crotaphytus collaris*. For some reason they were very scarce today. We caught 1 *Sauromalus obesus* + a couple *Crotaphytus collaris*. Then we drove through 29 Palms on our way to Granddaddy Dune.

Palm Springs area, Riverside Co., Calif.

We caught a few *Uma inornata* before dark on Granddaddy Dune. Then we drove to our campsite near the powerlines east of Garnet.

Aug. 11

We started looking for animals on Granddaddy Dune at 0630. A large number of *Uma inornata* were captured rather early, so we decided to drive to Vista Chino Road in Palm Springs to get *Dipsosaurus dorsalis*. (Left G. Dune at 0840.)

Relatively few *Dipsosaurus* were seen the rest of the morning, however. We were quite surprised at the small number seen.

Mayhew
1960

Journal

Aug. 11

Palm Springs area, Riverside Co., Calif.

We returned to UCR at 1845, after taking a trip up into Deep Canyon with Lloyd Tevis. The total distance driven on the trip was 861 miles.

Two can (5 gal.) traps had been set out the month before, one at Windy Point, one near the Coachella Canal. The animals found in these traps this month were:

Windy Point
2 Chionactis occipitalis
1 Uma inornata (ad ♀)
1 Callisaurus draconoides
1 dead Urosaurus graciosa
several scorpions & beetles

Coachella Canal
2 Chionactis occipitalis
several scorpions & beetles

Upon our return, we placed the following animals in the outdoor cages to hold over the winter:

cage #1
Uma inornata - 22 (3 ad ♂; 7 ad ♀; 1 ad? ♂; 9 ad? ♀; 2 ?)

cage #2
Uma notata - 14 (5 ad ♂; 1 ad ♀; 4 ad? ♂; 4 ad? ♀)

cage #3
Uma scoparia - 12 (4 ad ♂; 6 ad ♀; 2 ad? ♀)

The remainder of the animals either were dissected or sent to Dr. Wm. Dawson at the University of Michigan. (16 were dissected)

Aug. 11

Mojave & Colorado desert trip.

Those dissected from this trip were:

Callisaurus draconoides — 12
Coleonyx variegatus — 6
Crotaphytus collaris — 2
" *wislizeni* — 1
Dipsosaurus dorsalis — 34
Phrynosoma m'calli — 4
" *platyrhinos* — 5
Sauromalus obesus — 2
Uma inornata — 36
" *notata* — 27
" *scoparia* — 28
Urosaurus graciosa — 6
Uta stansburiana — 1

Total — 164

approximately 30 animals were mailed to Dawson from this collecting trip, and 48 were placed in outdoor cages.

Aug. 15 Palm Springs, Riverside Co., Calif.

Bob Lasiewski & I left UCR at 0520 to try to get some Dipsosaurus dorsalis. The weather was very pleasant, with the temperature remaining below 100°F. until afternoon. As a result, 64 animals were captured this morning:

24	Dipsosaurus dorsalis
27	Uma inornata
3	Crotaphytus wislizeni (juv.)
1	Cnemidophorus tigris (juv.)
2	Dipsosaurus dorsalis (juv.)
1	Urosaurus graciosa (juv.)
6	Uma inornata (juv.)
64	animals

We returned to UCR at 1240 after driving 105 miles today.

Sept. 9 Glamis area, Imperial Co., Calif.

Walt Moberly, Ray Folmar, Tony Tchelakis, & I left UCR at 1035 in #240 (1958 Chev. station wagon). We reached the Glamis area at 1640 (Highline Canal). We drove slowly between the two canals looking for animals. 9 Phrynosoma m'calli were collected here (6 immatures). We reached the Yuma Dunes about sundown, but still were able to capture 6 adult Uma notata before dark. (Sundown at 1753 - last Uma caught at 1820.) One young & 1 adult Crotalus cerastes were found

Sept. 9 | Glamis area, Imperial Co., Calif.

in the dunes at this time (1815). Both were on top of sand clumps around the base of *Ephedra californicus*. We began night collecting at 1820 & continued to 2200 (46 miles). Several *Coleonyx variegatus* and one adult *Crotalus cerastes* were found on the road. We drove 219 miles today. Maximum temp. today was 105°F., minimum temp. tonight was 82°F.

Sept. 10 We arose at 0650 & ate breakfast. We began looking for lizards at 0755. We collected lizards until 1030. The humidity was so high, collecting was miserable. We were continually bathing in our own sweat. Several *Urosaurus graciosa* & *Uma notata* were captured, however. 2 more traps were set out just north of the road at our usual collecting site. We checked the trap at Coachella Canal, but found only 6 scorpions and a large number of beetles. We left the area & drove to Glamis, where the owner of the store agreed to check a rain gauge for me. I mounted it in his back yard. Then we drove north through Joshua Tree Nat'l. Monument. Smoke Tree Wash had a flash flood go through as we crossed it. It had been flowing a little before

Sept. 10 Dale Dry Lake, San Bernardino Co., Calif.
we arrived. We camped at our usual site near Dale Dry Lake. (It had rained very heavily at Glamis on Sunday, Sept. 4th. Some estimated as much as an inch.) We drove 199 miles today. Maximum temp. today was 103°F., minimum temp. tonight was 82°F.

Sept. 11 We arose at 0615. We looked for lizards from 0800 to 1130. Not too many animals were seen this morning. Some Dipsosaurus dorsalis as well as several Uma scoparia were captured. A few animals were still active when we quit at 1130, but they were hard to find and harder to catch. After collecting our soil sample, we left the area at 1205. We reached UCR at 1515. Maximum temp. that we recorded today was 100°F. We drove 112 miles today, and 530 miles on the entire trip.

Animals caught on this trip were:

Uma notata – 30
" scoparia – 17
Dipsosaurus dorsalis – 6
Phrynosoma m'calli – 9
Coleonyx variegatus – 7
Urosaurus graciosa – 9
Callisaurus draconoides – 1

Total – 79

Sept. 16 Palm Springs, Riverside Co., Calif.

Walt Moberly & I left UCR at 0500 to get our monthly sample at this collecting site. We checked the trap at Windy Point, but only a few beetles were in it. Sunrise occurred at 0535. We reached Vista Chino at 0600. It was still quite cool, so we didn't begin to look for animals until 0645. We looked until 1215. The first Uma (a hatchling) was seen at 0705. At that time, weather conditions were:

air temp (30") – 26.4°C.
" " (1cm) – 27.6°C.
soil temp. – 29.0°C.
Clear with no wind

Two hatchling Phrynosoma m'calli were picked up on the sand some distance apart (one at 0720, the other at 0810). Some animals still were active when we quit. At this time, weather conditions were:

air temp (30") – 36.[illegible]°C.
" " (1cm) – 41.5°C.
soil temp. – 64.0°C.

Animals caught today were:

Uma inornata – 26 (3 hatchlings)
Dipsosaurus dorsalis – 8
Phrynosoma m'calli – 2 (both hatchlings)
Total – 36

We returned to UCR at 1410 after driving 105 miles today.

Oct. 7, 1960 Palm Springs, Riverside Co., Calif.

Walt Moberly + I left UCR at 0600. We checked the trap at Windy Point at 0700. Several beetles were present, as well as one tiny scorpion and one dead hatchling Chionactis occipitalis, but no living reptiles. The trap was about 1/3 full of sand. We reached a collecting site across the road (Ramon Road) from the cemetery at 0730. We looked for lizards from then until 1130. During that time we saw only 2 adults, both of which we caught (1♂, 1♀). (Uma inornata)

A fair number of young animals (hatchlings) were seen, the earliest at 0700. Lots of Crotalus cerastes tracks were seen (at least a dozen separate tracks), + one young Crotalus cerastes was seen at the entrance to a burrow. Almost no tracks of adult Uma inornata were seen anywhere, although 3 students caught 2 adults + saw several more at this same site yesterday. We drove to Vista Chino Ave. for our soil sample, arriving at 1200. Then we looked for Uma at this site until about 1220. No animals or tracks of adults were seen. However, 1 hatchling Uma inornata, 1 hatchling Cnemidophorus tigris, + 1 hatchling Dipsosaurus dorsalis were seen here. We left for UCR at 1230, but saw Floyd Tevis on the way. We reached UCR at 1630 after driving 137 miles today.

Mayhew
1960

Oct. 14

Glamis area, Imperial Co., Calif.
Walt Moberly, Bill Truesdell & I left UCR at 1610 on our monthly collecting trip. We reached the Highline Canal at 1925. We night-collected between the two canals from then until 2345. We drove 62 miles night collecting, & caught the following:
4 Coleonyx variegatus (2♂, 2♀)
1 Phrynosoma m'calli (juv.)
Seen DOR were:
2 Phrynosoma m'calli
2 Callisaurus draconoides
2 Uma notata
1 Crotalus cerastes
1 Salvadora hexalepis
Minimum temp tonight - 50°F.
We drove 210 miles today.

Oct. 15

We arose at 0715. The two traps in the dunes contained a large number of beetles. They were collected & brought back to UCR for Charles Papp. Also in these traps were:
2 dead Hadrurus hirsutus
1 " Crotalus cerastes
3 " Uma notata (juv.) (skulls only)
3 live Uma notata (juv.)
We looked for lizards from 0835 to 1420. The weather was cool & overcast, so relatively few adult lizards were active. We saw perhaps a dozen adults (Uma) besides the ones we captured. We captured today:
38 young Uma notata

Oct. 15

Glamis area, Imperial Co., Calif.

25 Uma notata (adult) [Total Uma - 63]

1 Coleonyx variegatus

3 Urosaurus graciosa

Thus, ~~65~~ 67 animals were caught today.

A number of plants were in bloom in the dunes this trip:

Croton californica
Helianthus tephrodes (full bloom)
Eriogonum deserticola (full bloom)
Palafoxia linearis (full bloom)
Petalonyx thurberi (full bloom)
Coldenia plicata

Lots of new Coldenia + Palafoxia are just coming up.

Dicoria canescens is in very good shape, but only buds are present now.

Beginning about sunrise the weather became increasingly cloudy. By 0835 the sun could hardly be located. A N.W. wind 5-8 mph. blew most of the morning. The maximum temp. today was only 76°F.

We checked in with Mr. Van Der Poel at the Glamis store + learned that no rain had fallen since we installed the rain gauge last month.

Then we checked the trap near the Coachella Canal. Again, a large number of beetles were collected for C. Papp. 1 Hadrurus hirsutus also was collected

Oct. 15 Glamis area, Imperial Co., Calif.
(for Betty Aaron). Other species of plants were in bloom here:

Pectis papposa
Mentzelia affinis (?)
Palafoxia linearis
Coldenia plicata
Franseria dumosa
Chicory-type of plant

We left the Coachella Canal at 1635.

Dale Dry Lake area, San Bernardino Co., Calif.

We arrived at Dale Dry Lake at 2025, after driving 172 miles today. I drove off the dirt road at our campsite, so we had to dig until 2200 to get out of the sand. The minimum temp tonight was 52°F.

Oct. 16 We arose at 0800. We checked the two traps near our campsite. A young *Arizona elegans* was in one trap along with numerous beetles. Nothing but beetles were in the other trap. We looked for lizards from 0930 to 1345. The weather was quite cool (maximum temp. today was 77°F.) + overcast much of the day, so relatively few adult *Uma scoparia* were seen. Four adults were caught + about 3 or 4 others were seen, + that's all. Lots of young *Uma scoparia* were seen, however. The first young *Uma* was seen at 0940, but no other ones were seen

Oct. 16 Dale Dry Lake area, San Bernardino Co., Calif.

until 1020. Then they were rather numerous.
At 0930 the weather conditions were:
80% overcast; N.E. wind - 10 to 15 mph.
air temp (30") - 19.8 °C.
" " (1 cm) - 20.8 °C.
soil surface temp - 22.8 °C.
44 animals were captured today, as follows:
36 Uma scoparia (young)
5 Uma scoparia (adult - 2♂, 3♀)
2 Urosaurus graciosa
1 Arizona elegans (young)
The 1st adult Uma scoparia was seen at 1135, Bench mark near Iron Age Mine Road - 1336 ft. elev.
Dicoria canescens & Dalea emoryi are in bloom here.
We left Dale Dry Lake at 1430 and stopped a few moments later at Joseph De Salliers' house to set up a rain gauge. Along the road home we saw the following species in bloom:
Isomeris arborea, Pectis papposa
Stephanomeria sp. Eriogonum sp
Chrysothamnus sp. Cassia armata
We reached UCR at 1755 after driving 114 miles today. We drove 506 miles on the entire trip. 116 animals were caught on the trip: Uma notata - 63 Urosaurus graciosa - 5
Uma scoparia - 41 Arizona elegans - 1
Phrynosoma m'calli - 1
Coleonyx variegatus - 5

Mayhew
1961

Jan. 17 UCR campus, Riverside Co., Calif.

Eugene Roller & I spent slightly over an hour on the hills at the S.E. side of the campus. We went out to check the 9 lizard traps he has set east of the bee-hives. Two *Eumeces skiltonianus* and 1 *Uta stansburiana* were removed from traps. Two *Sceloporus orcutti* adults and 3 *Uta stansburiana* adults were noosed. There have been 16 days of temperatures above 70°F., so several species are active already. We were on the hill from approximately 1310 to about 1430.

Jan. 18 Walt Moberly & I arrived on the same hillside at 1000. at this time there was a S.E. wind from 0-3 mph. blowing, the sky was 25% overcast. air temp. at 30" was 23.8°C., rock surface temp. (sun) was 26.2°C., air temp. (1 cm) was 29.6°C. One *Sceloporus orcutti* + 2 *Uta stansburiana* were seen on rocks when we arrived. Between than and 1210, when we stopped looking, we captured 4 juvenal *Sceloporus orcutti* + 1 adult, 1 adult *Sceloporus occidentalis*, + 1 adult *Uta stansburiana*. We looked over most of the rock piles at that end of the campus, but very few adult *Sceloporus orcutti* were seen (3). The air temp. at 30" when we quit was 27.2°C.

Mayhew
1961

Journal

Jan. 31

UCR campus, Riverside Co., Calif.

Walt Moberly & I went up onto the hills at the south end of the campus to try to locate the marks we had placed on the rocks in 1958 to indicate the location of Sceloporus orcutti captures. We did this from 0930 to 1230, then from 1330 to 1630. We found all but 21 of the marks today (68 found). The weather was rather cool and overcast for much of the day. We saw 6 adult and 3 juvenal Sceloporus orcutti, ~~two~~ Sceloporus occidentalis adults, and one Uta stansburiana adult. Walt caught an adult Lichanura roseofusca on a rock.

Feb. 2

Glamis area, Imperial Co., Calif.

Walt Moberly, Bill Truesdall, & I left UCR at 1245 today for our monthly collecting trip (1st since October because my research grant has been spent). We stopped at Lloyd Tevis' to pick up the Serdex hygrometer, then drove up Pines to Palms Highway to section 19 to get some pictures of Deep Canyon Station. The sky was overcast all day so no harsh shadows were present. Then we drove on to the Coachella Canal, which we reached at 1928. At this time the air temp. (30") was 17.0°C. No wind was blowing but there were numerous clouds in the sky. We night-collected between the two canals and up to the big dune, but saw no live animals. One juvenal Phrynosoma m'calli was found near

Mayhew 1961

Feb. 2 Glamis area, Imperial Co., Calif.

over on the road between the canals. In its squashed condition it measured 42 mm. S-V length. It had just been killed today, so at least some of them are active now. We quit night-collecting at 2000 and went to bed at 2330. We drove 185 miles today. The minimum temp. tonight was 56°F.

Feb. 3 We arose at 0730 and ate breakfast. Then we checked the traps by the Coachella Canal. These beetles were placed in B17. Only 9 beetles were in this can (5 Eleodes, 4 one other species). A dead adult Citellus tereticaudus was also in the can. We collected on the road from 0920 to 1020. A young Phrynosoma m'calli was caught, but that was the only lizard seen. During this time the air temp. (30") ranged from 19.0° to 20.6°C. One of the two traps at our collecting site had been pulled out of the ground and the beetles were scattered all around. We replaced the can where it belonged. The other can contained enough beetles to completely fill bottles 20, 23, 52, 58, and 59. These traps are in the dunes, less than 2 miles from the trap near the canal in the lush creosote bush scrub, but contained a much larger number of beetles. Several dozen dead beetles were still on the ground around the trap that was pulled out, so presumably it would have contained as many beetles if left undisturbed.

Feb. 3 Glamis area, Imperial Co., Calif.

We looked for Uma notata from 1105 to 1330. During that time we saw 6 adults, 2 immatures, & 53 juvenals. We captured 1 adult alive (& 1 dead), 2 immatures, and 23 juvenals. The dead one had had its head eaten just a short time before we found it, so we opened it up and preserved it in formalin. It had very large fat bodies. The maximum temp. today was 24.4°C. When we left Glamis at 1455 we collected along the road all the way to the Highline Canal, which we reached at 1600. Not one lizard was seen, but 19 Gambel quail were seen about 1/2 mile east of the Coachella Canal. A strange weevil-like beetle was caught on Ephedra californica near the Coachella Canal & placed in B4. There were gall-like substances on the branches that appeared very similar to the beetle. The air temp. on this portion of the trip ranged from 24.4° to 24.0°C.

Dale Dry Lake area, San Bernardino Co., Calif.

We reached Dale at 2120, after driving 196 miles today. We weighed & measured all the immature & juvenal animals we caught. We went to bed at 2315 shortly after the wind began to blow. The minimum temp. tonight was 48°F.

Feb. 4 We arose at 0945 because the wind is still blowing quite hard (13-16 mph), so it is quite cool. We checked both lizard traps. No lizards in either one. However, we collected 27 sand crickets, about 55-60 Eleodes, an isopod-like

Feb. 4 Dale Dry Lake area, San Bernardino Co., Calif.

beetle, and a small black beetle. Later a small weevil was captured near the car. The crickets are in B43, the Eleodes in B25, 33. The weevil is in B50. We looked for lizards from 1140 to 1305, then from 1355 to 1445. At the time we started looking, air temp. (30") was 18°C.; at 1cm, 20.6°C. There were no clouds, but a wind 13-16 mph. was blowing from the N.W. We caught 5 juvenal Uma scoparia (all we saw). We saw no adults & no tracks of any. However, the wind blew all night long, so any earlier tracks would have been eliminated. We hiked to the hills south of Dale & found a nice stream bed (dry) & what appears to be good Sauromalus area. Then we drove on to Deep Canyon Desert Research area to camp for the night. We arrived at 1945 after driving 91 miles today. Minimum temp. tonight was 50°F. Max. temp. today - 22.0°C.

Feb. 5 Palm Springs area, Riverside Co., Calif.

We arose at 0800 and ate breakfast. Then we drove to Rio Del Sol Road, which we covered slowly, looking for reptiles. None were seen on that road nor on Ramon Road into Palm Springs. We drove to Vista Chino to our usual collecting site, but there are getting to be a great many houses around it. Vista Chino has been extended eastward about 2 miles since our last trip here in October (1960). We drove out that until we reached the new subdivision that

Mayhew
1961

Feb. 5 Palm Springs area, Riverside Co., Calif.

is just being established, called Palm Springs Panorama (Palm Springs Highlands is going in just south of it). We drove to the east end of P.S. Panorama, then started looking for lizards in the open country east of the road. We began looking for lizards at 1115 and continued to look until 1425. During that time we saw (and captured) 8 juvenal and 1 adult Uma inornata. all of these were found between 1115 and 1320. No lizards were seen after 1320. During this time the wind was blowing 5-8 mph. from the N.W. There were no clouds. The air temp. (30") ranged from 20.2°C to 22.2°C. during this time. We established soil sample station #3 about 100 feet east of the corner of Date Palm Drive and Tachevah Drive, which is at the present N.E. corner of the subdivision. The area we selected is outside the subdivision. We checked the trap at Windy Point on our way home. We removed 1 dead juvenal Uma inornata and 3 live juvenal Uma inornata. There were also 17 Eleodes, 2 sand crickets, 1 small scorpion, and 4 millipeds. We reached UCR at 1700 after driving 84 miles today (556 miles for the entire trip). We caught a total of 1 Phrynosoma m'calli, 1 Uta stansburiana, 27 Uma notata, 12 Uma inornata, 5 Uma scoparia.

Feb. 5

Palm Springs area, Riverside Co., Calif.

Thus, we brought back 46 animals of 5 species for the entire trip. We caught all the Uma scoparia and Uma inornata that we saw, and about 1/2 of the Uma notata.

The following plants were seen in bloom at these locations:

Palm Springs area

Isomeris arborea
Encelia farinosa
Nama demissum
Dithyrea californica
Oenothera deltoides
Geraea canescens
Abronia villosa
Lupinus sp.

Glamis area

Palafoxia linearis
Dithyrea californica
Larrea divaricata
Croton californica
Helianthus tephrodes
Astragalus piersonii
Abronia villosa
Mentzelia multiflora

Hesperocallis undulata are becoming quite large, but are not blooming yet. The perennials appear to be in fine shape, and quite a few annuals are beginning to appear just above the soil.

Dale Dry Lake area

Cryptantha sp.
Hyptis emoryi
Physalis crassifolia

The perennials in the washes look good, but the ones on the open desert don't look so good. Many annuals are beginning to show through the ground, but most of them are only a few millimeters high.

Feb. 7 UCR campus, Riverside Co., Calif.

This afternoon Walt Mobely & I spent some time up on the hills. Not many lizards were active, as the air temp. didn't get above 22.4°C. while we were there (1410 to 1530). We caught 3 *Sceloporus orcutti* and saw 3 more. We also saw the following:

Cnemidophorus hyperythrus – 1 ad.
Sceloporus occidentalis – 1 ad.
Uta stansburiana – 3 ad.

Feb. 21 Today Walt Mobely & I spent from 0835 to 1045 looking for lizards in A area. The wind, which had been blowing 5-8 mph. picked up to 10-15 mph. about 0950. Even though the temperature wasn't greatly different after that, relatively few animals were seen after that time.

Animals seen today were:

	S. orcutti		S. occidentalis		U. stansburiana
Time	ad	juv.	ad.	juv.	ad
0835	1	11	11		
0915		1			11
0925	1				1
0940	11	1			
1020		1			
1040	1		1		1

(See *Sceloporus orcutti* notes for weather data.)

Mar. 6 This afternoon Walt Mobely & I looked for lizards on campus. We began looking at 1250. The sky was completely overcast most of the day, so the

Mar. 6 UCR campus, Riverside Co., Calif.

temperatures were rather low. At 1250 weather conditions were:
air temp (30")- 16.0°C. air temp.(1cm)-16.6°C.
rock surface temp.- 20.0°C. 100% overcast
0-3 mph wind from NW.

A 1/2 grown *Sceloporus orcutti* was seen in the open on a rock at 1310. An adult ♀ *Coleonyx variegatus* was captured at 1320 when I turned over a piece of packing case lying on the ground on B area. Juvenal *Sceloporus orcutti* were seen at 1325 and at 1340. One of them (seen at 1340) was captured. An adult male *Uta stansburiana* & adult female *Sceloporus orcutti* were captured shortly before we left the study area at 1400. No other animals were seen except another juvenal *Sceloporus orcutti*, at 1402, as we were leaving the area. At this time the weather conditions were: air temp.(30")-18.4°C, air temp.(1cm)-21.0°C. rock surf. temp.-24.2°C. 100% overcast 0-3 mph wind from NW.
We drove 2 miles south of the campus on Canyon Crest Drive. No animals were seen on any of the rocks to our old collecting site at that point. Here we saw 3 *Uta stansburiana*, but could only catch one. No other animals were seen the rest of the afternoon. We drove on dirt roads over many of the hillsides at

Mar. 6 UCR area, Riverside Co., Calif.

this location. Occasionally we left the pick-up and climbed over rock piles without seeing a single lizard. Then we drove south to Alessandro ave., then east to Alessandro, finally N.E. to Pigeon Pass ~~just~~ east of Box Springs Mts. No lizards were seen on any of the rock piles or fence posts where we have captured numerous lizards in the past. We reached UCR again at 1600. No lizards were seen after 1435. Weather conditions at 1435, when we saw our last lizard, were as follows:

air temp. (30") – 17.4°C. air temp. (1cm) – 19.2°C.
soil surf. temp. – 30.2°C. 90% overcast
3-5 mph wind from NW

Mar. 7 I went up on the back of campus this afternoon at 1400 to look for lizards, at this time the weather conditions were:

air temp. (30") – 24.8°C. air temp. (1cm) – 27.6°C.
soil surface temp. – 46.0°C. rock surface temp. – 36.8°C.
no overcast; 3-5 mph breeze from NW.

Many hillsides were searched with the aid of binoculars, but almost no lizards were seen this afternoon. The temperature is considerably higher than yesterday, but still few animals are out – these are mostly Uta stansburiana. The times at which lizards were seen,

Mar. 7 UCR campus, Riverside Co., Calif.
this afternoon are:

Time		Species
1410		ad. ♀ Sceloporus orcutti
1420	3	ad. Uta stansburiana
1440	2	" " "
1450	1	" " "
1450	1	juv. Sceloporus orcutti
1455	1	ad. Sceloporus occidentalis
1520	1	" " "

I left the area at 1525. By then the air temp. (30") was 21.0°C.

Mar. 13 This morning I walked over the east portion of the campus looking for reptiles. I began at 1030, at which time weather conditions were as follows: air temp (30")- 21.8°C. (1cm) - 25.4°C. soil- 44.4°C. 0 overcast, 0-3 mph breeze from N. During the morning I captured 10 Sceloporus occidentalis & 1 Uta stansburiana. When I quit at 1235, the air temp (30") was 24.2°, (1cm)-30.0°, soil - 50+°.

2 mi. N.W. of Sunnymead, Riverside Co., Calif.

This afternoon Walt Mobealy & I went to the east side of Box Springs Mts. We arrived at 1350, at which time the weather conditions were as follows: air temp (30")-24.8°C. (1cm)-29.5°C. soil-42.0°C. 0 overcast, 3-5 mph breeze from NW. We saw 3 Crotalus ruber during the afternoon,

Mar. 13 2 mi. N.W. of Sunnymead, Riverside Co., Calif.

but we didn't bother them. All 3 were seen within 400 yards of Walt's pick-up. We captured 2 juvenal *Sceloporus orcutti* as well as 7 adults of this species. We also caught 4 *Uta stansburiana* and 3 *Sceloporus occidentalis*. We quit at 1700. By then the sun was no longer shining on the rocks on that side of the mountains.

Mar. 16 Palm Springs, Riverside Co., Calif.

Walt Moberly & I left UCR in the geology carry-all at 0835. We checked the trap at Windy Point and found it completely filled with sand. We removed the trap & took it with us. We reached Palm Springs Panorama at 1000. At that time weather conditions were: air temp. (30") - 18.8°C., (1cm) - 22.4°C., soil surface - 36.2°C., no overcast, 36% rel. humidity, 12-15 mph. wind from NW. A couple of animals were found immediately (ad. ♂ & ad. ♀). We walked over a mile, however, without seeing any more. As soon as we began to drive down the road again, we found 4 adults within the first 100 yards. For the rest of the day we drove the roads, about 10-15 mph., looking for lizards. In this way we were able to capture 8 adult ♂, 3 adult ♀, 5 juvenals. No adult animals were seen after 1400. The juvenals were weighed, measured, & released.

Mar. 16

Palm Springs, Riverside Co., Calif.

Nothing but Uma inornata was seen today, although Lloyd Tevis told me this afternoon he saw a Dipsosaurus dorsalis near the laboratory at Deep Canyon. We stopped looking for lizards at 1430. Lloyd showed us how to get to the dunes north of Palm Desert afterwards. They look like the Yuma Dunes except they are white sand. If anything, the dunes themselves are more barren than the Yuma Dunes, but atriplex is thick up to the dunes. They appear to be about one mile long and somewhat less than 1/2 mile wide. One of the owners of the dunes was waiting to talk to us when we came out of the dunes. He seems to be anxious to sell his share. His name is Dick DuBois. His partner, George A. Braley, owns the rest of the dunes. We returned to UCR at 1900 after driving 168 miles today.

Uma inornata juvenals

#1	♂	52 mm.	4.2 grams
#2	♂	55 "	5.1 "
#3	♀	59 "	5.8 "
#4	♂	53 "	5.1 "
#5	♂	54 "	6.0 "

We saw only large adults or juvenals today — no intermediate animals seemed to be out.

Mar. 18 UCR campus, Riverside Co., Calif.

This morning the field zoology class had a campus trip. We looked for birds primarily — at least during the first half of the trip. Then lizards began to get active. We caught a total of 35 lizards of 3 species, as follows:

9 *Sceloporus occidentalis*
6 *Uta stansburiana*
20 *Cnemidophorus hyperythrus*

This was the first time I had ever noosed a *C. hyperythrus*. They were extremely abundant on the slopes containing *Encelia farinosa*. As this is the driest year on record for Riverside to date (2.49") no grass has come up & *Encelia* hasn't leafed out. Consequently, these animals don't have the cover to protect them that they normally do during their active periods. Thus, they were relatively easy to capture. They seem to refuse to go into a hole, but keep moving about on the surface. None of them were seen after 1310 until we quit looking at 1335. They seemed to be much more abundant than *Uta stansburiana* in that habitat. A total of 28 species of animals were seen on this trip, which lasted from 0820 to 1340. Very few animals were still active when we quit for the day.

Mar. 20

UCR campus, Riverside Co., Calif.
This afternoon Walt Moberly & I looked for lizards on campus. We began at 1330. At that time the weather conditions were: air temp. (30")-23.8°C. (1cm)-27.0°C. soil surface temp.-43.6°C., rock surface temp.-42.8°C, 0-3 mph. wind from N.E., 50% overcast (thin). We looked for Sceloporus orcutti from 1330 to 1430. Only 4 animals of this species were seen (1 ad. ♀, 3 juvenals), 3 of which were captured (ad ♀ & 2 juvenals). At 1430 we left the rocky areas & started looking for Cnemidophorus hyperythrus several hundred yards east of Webber Hall. Only one animal of this species was seen (about 1500), and it eluded capture. However, 7 Uta stansburiana (5 ♂, 2 ♀) and 1 Sceloporus occidentalis were captured before we quit looking at 1530. One Eumeces skiltonianus was seen while we were looking for Sceloporus orcutti. At 1530 the weather conditions were: air temp. (30")-22.2°C. (1cm)-24.5°C. soil temp.-33.0°C. wind 5-8 mph. from NE, 75% overcast (thin). We looked in locations where numerous S. orcutti & C. hyperythrus were seen earlier this year, so I feel quite certain they simply weren't active at this time of day today. Numerous Uta stansburiana were seen, but relatively few Sceloporus occidentalis.

Mar. 21 UCR campus, Riverside Co., Calif.

This morning at 0930 I began looking for lizards on the east side of the campus. At that time weather conditions were: air temp. (30") - 17.4°C., (1cm) - 19.6°C., soil surface temp. - 32.0°C., 0-3 mph breeze from N, 0 overcast. I looked in *Cnemidophorus hyperythrus* habitat from 0955 to 1008 without seeing any signs of them. At 1045 I drove up to the area around Ag. Extension Bldg. (old Director's Home for C.E.S.). I saw the first *C. hyperythrus* today at 1125. A little later I saw 3 of them feeding under one bush. I was able to catch only one of the 4 I saw today. I had another in the air 3 times, but it escaped from the noose each time. I caught all the *Sceloporus orcutti* I saw this morning, but several *Sceloporus occidentalis* and *Uta stansburiana* escaped. Fifteen animals were caught, as follows:

1 *Cnemidophorus hyperythrus* (ad. ♂)
8 *Sceloporus occidentalis* (7♂, 1♀)
4 *Sceloporus orcutti* (1 ad. ♀, 1 juv. ♀, 2 ad. ♂)
2 *Uta stansburiana* (1♂, 1♀)

I returned to the lab. at 1330. At that time the air temp. (30") was 22.0°C.

Mar. 23 2 mi. S. of UCR, Riverside Co., Calif.

This morning Walt Moberly & I drove through the coastal sage scrub areas on Canyon Crest Drive.

Mayhew 1961

Mar. 23

2 mi. S. of UCR, Riverside Co., Calif.

We reached the area at 1015, since fog was fairly thick until about 1000. The sun didn't break through until 1015, however. At this time weather conditions were: air temp.(30")- 14.4°C., (1cm)-20.0°C., soil surf. temp - 33.0°C. 0 wind, 95 % overcast. Between then and 1100, when the fog rolled in again, we caught 6 animals (& saw 1 juv. S. orcutti):

4 Sceloporus occidentalis (3 ♂, 1 ♀)
1 Sceloporus orcutti (ad ♀)
1 Uta stansburiana (ad ♂)

At that time a 5-8 mph wind from the west arose & the air temp.(30") dropped to 10.8°C. No animals were seen anywhere from then until we returned to UCR at 1130.

Mar. 26

Glamis area, Imperial Co., Calif.

Dave Young, Ed Eberle, & I left UCR at 0830 today. We stopped on the east edge of Mecca, Riverside Co., Calif. for a few minutes to see if Uma inornata occurred in the sandy areas there. None were seen, but the following animals were captured while we were there:

4 Dipsosaurus dorsalis (juv.)
1 Crotaphytus wislizenii (ad ♀)
1 Uta stansburiana (ad ♂)
1 Callisaurus draconoides (ad ♂)

At 1200 we drove on toward Glamis.

Mar. 26 Glamis area, Imperial Co., Calif.
We looked for animals along the road between the two canals between 1415 and 1600. We caught 2 *Phrynosoma m'calli* + salvaged one dead one from the road. In all, we found 7 run over on the road between the canals. At 1600 we began to look for *Uma notata* in the dunes. We saw several, but most of them were very "spooky". We finally succeeded in capturing 1 ad ♀, and 3 immature *Uma notata* + one ad. ♂ *Urosaurus graciosus*. One of our traps in the dunes has disappeared, apparently having been carried away by someone. The other traps in the dune was filled to the top with sand. We began night collecting at 1835. Between then and 2145, when we quit, we caught 2 ad ♂ *Coleonyx variegatus* + found one that had been run over by a car. No other animals were seen. We drove 50 miles night collecting between the 2 canals. We drove a total of 239 miles today. The maximum temp. today was 75°F. The minimum temp. tonight was 50.0°F. We collected a total of 14 animals of 8 species today.

Mar. 27 We arose at 0830 and ate breakfast. At that time the wind was blowing 5-10 mph. from the south, with gusts to 18 mph. Nevertheless, we began looking for lizards at 0945. Young lizards were seen immediately. No adults (*Uma notata*) were seen until 1020.

Mar. 27

Glamis area, Imperial Co., Calif.

We looked for lizards until 1400. By that time we had 29 young Uma notata (3 caught last evening) and 10 adult Uma notata as well as 7 Urosaurus graciosa. These were the only species of lizards seen today. The wind became much stronger later in the afternoon (15-18 mph). After collecting a soil sample, we drove to Glamis. No rain has fallen since last trip.

At 1535 we began looking for Phrynosoma m'calli between the canals, ceasing our looking at 1600. No sign could be found of this species — either dead or alive. It was approximately the same time of day we found them yesterday, but I think the wind kept them from their perches along the road. None seemed to have been run over by cars today either. We then drove on to Dale Dry Lake, arriving at 1945. The maximum temp. today was 82°F. The minimum tonight was 52°F. We drove 222 miles today. Two dead Pituophis catenifer were seen on the road today — one 4 mi. north of Brawley & one in Niland.

Mar. 28

Dale Dry Lake area, San Bernardino Co., Calif.

We arose at 0615 because it began to sprinkle on us. We checked the lizard traps, but nothing except a few dead beetles were found. I used a shovel

Mar. 28 Dale Dry Lake area, San Bernardino Co., Calif. to check for soil moisture. No moisture could be found down to 26 inches. It began raining harder, & it appeared that the storm would last most of the day, so we headed for home at 0715. We reached UCR at 0945, after driving 105 miles today (we drove 566 miles on the entire trip).

April 7 Dale Dry Lake area, San Bernardino Co., Calif. Walt Moberly, Fritz Zaebst & I left UCR at 1730, planning to spend the night near Palm Springs. However, the wind was blowing so hard that we decided to spend the night at Dale. On the way we night collected on the old highway between Garnet & 1000 Palms, then on Dillon Road. One Arizona elegans was all we saw.

April 8 We arose at 0645. We checked our 2 traps for lizards. One trap had most of the sand blown away from its sides. However, 1 dead & 1 live Citellus tereticaudus were in it. The dead one was minus a head. The other traps contained 3 juvenal Uma scoparia as well as several beetles including one Triorophus costatus mayhewi, several sand crickets & Eleodes armatus. We

April 8 Dale Dry Lake, San Bernardino Co., Calif.
started looking for lizards at 0830. Lots of young animals were seen — we captured 45 of them. 32 of these were weighed, measured, toe-clipped & released near the Iron Age Mine Road. The remainder were brought back to the laboratory. Very few adults were seen. We caught 3 ad ♂ + 4 ad ♀, but these were about the only adults we saw all day. We stopped looking at 1315. Then we drove to the Palm Springs area. We drove the old highway & Dillon Road again tonight, but only saw 2 Crotalus cerastes. We spent the night at Deep Canyon Desert Research Station.

April 9 Palm Springs area, Riverside Co., Calif.
We began looking for lizards at 0920 on the Dunes north of Palm Desert. Several animals were seen, but were impossible to catch under the atriplex. We then drove to Palm Springs Panorama & Palm Springs Highlands to collect along their roads. Several large animals were seen & collected, but relatively few young animals were seen. Two Crotalus cerastes (assumed to be a pair) were seen under the same bush (Larrea) at 1315. We stopped collecting at 1600 and returned to

Mayhew
1961

Journal

April 9 Palm Springs area, Riverside Co., Calif

UCR, which we reached at 1810. We drove 412 miles on the trip.

April 11 Mt. Rubidoux, Riverside, Riverside Co., Calif.

Today Walt Mobeely & I worked this area for April's Sceloporus orcutti sample. We reached the area at 0930, and collected until 1505. We were able to collect 36 animals today, 21 of which were Sceloporus orcutti. Uta stansburiana (8), Sceloporus occidentalis (5), and Cnemidophorus hyperythrus (2) made up the remainder of the animals captured.

April 14 Salton Sea area, Riverside & Imperial Cos, Calif.

The field zoology class (16 students) & I left UCR at 1320 for the week-end. We reached Mecca at 1500 and began to look for reptiles 2 miles east of Mecca. We caught 1 Urosaurus graciosa, 1 Callisaurus draconoides, 1 Uta stansburiana, & 1 Phrynosoma platyrhinos before we left at 1615. We spent the night near Harpers Well. I missed the turn to the well in the dark, so we camped about 1 mile S.E. of the well.

April 15 We hiked to San Felipe Creek this morning. Very few animals of any kind were seen. (No Phainopepla, which we often see here.) We drove to Ramer Lake & ate lunch.

April 15

Glamis area, Imperial Co., Calif.

After lunch we looked at birds on & around the lake. They were not nearly as abundant as in the past. After this we drove on toward Glamis, collecting along the road as we drove. We picked up 5 Phrynosoma m'calli between the Highline & Coachella Canals, and saw 4 dead ones on the road. One car patrolled the road while the rest ate, then the other cars began night collecting also. At least one car was on the road somewhere between the Ogilby - Blythe road and the Highline Canal from 1640 to 0035. No animals were seen on the road between 1700 and 1855. Then Coleonyx variegatus became quite common until about 2200. Only a few were seen after that time. We saw 2 dead on the road and collected 46 live ones.

April 16

We arose at 0645 & ate breakfast. We began looking for lizards (1/2 the class in the dunes, the other 1/2 on the road in the pick-up) at 0830 and continued until 1300. After eating lunch in Glamis, we drove toward Brawley, collecting 2 Dipsosaurus dorsalis, 1 Crotaphytus wislizeni, & 1 Phrynosoma m'calli along the way. We returned to UCR via Warner's Hot Springs, reaching

Mayhew
1961

Journal

April 16 Colorado Desert, Riverside & Imperial Cos., Calif.

UCR at 2100. We drove 441 during the trip. The following animals were seen on the trip: Cyprinodon macularius

Mockingbird	Rough-winged swallow
Western kingbird	Ring-billed gull
House finch	Forster's tern
House sparrow	Black tern
Prairie falcon	Fulvous tree duck
Mourning dove	Hudsonian curlew
Gambel quail	Baldpate
Roadrunner	Burrowing owl
Brewer's blackbird	Black-necked stilt
Tree swallow	Violet-green swallow
Loggerhead shrike	Say's phoebe
Turkey vulture	Sphaerium sp.
Double-crested cormorant	Cyprinus carpio
Yellow-headed blackbird	Ictalurus sp.
Coot	Uma notata
Kingfisher	Crotalus cerastes
Pied-billed grebe	Chionactis occipitalis
Bittern	Urosaurus graciosa
Gull-billed tern	Uta stansburiana
Eared grebe	Callisaurus draconoides
Western meadowlark	Cnemidophorus tigris
Sparrow hawk	Phrynosoma platyrhinos
Raven	" m'calli
Lesser nighthawk	Citellus tereticaudus
Red-winged blackbird	Dipsosaurus dorsalis
Great horned owl	Lepus californicus
Lawrence goldfinch	Rana pipiens (larvae)

April 16 Colorado Desert, Riverside & Imperial Cos., Calif.

Sylvilagus auduboni   Dipodomys deserti
Coleonyx variegatus   Vulpes macrotis
Crotaphytus wislizeni   Red-shafted flicker

This makes a total of 61 species seen on this trip.

Reptiles collected on this trip were:

Callisaurus draconoides - 4
Cnemidophorus tigris - 1
Coleonyx variegatus - 46
Crotaphytus wislizeni - 2
Dipsosaurus dorsalis - 18
Phrynosoma platyrhinos - 1
Phrynosoma m'calli - 12 (4 dead ones seen)
Uma notata - 73
Urosaurus graciosa - 9
Uta stansburiana - 3
Chionactis occipitalis - 1

11 species   170 animals

Many of these will be toe-clipped, weighed, measured, & released at the collecting site next week-end.

May 5 Mojave Desert, San Bernardino Co., Calif.

The field zoology class left UCR at 1200, headed for Dale Dry Lake. We drove the new 1961 International 4-wheel drive Travelalls for the first time. We tried out the 4-wheel drive by going into the hills south of Dale. The vehicles have lots of power, but these tires aren't any good in sand. We finally reached

May 5 Mojave Desert, San Bernardino Co., Calif. our destination after much effort through the sandy stretches. We were too late to find any reptiles active in the rocks of the hills. We installed 12 more 5-gallon can lizard traps at Dale (5 near the campsite, 7 near the collecting site at Iron Age Mine Road). These were installed at sundown.

May 6 It was rather cool this morning, so lizards weren't active very early. Several beetles, a couple of scorpions, + spiders were taken from our traps. Half a dozen beetles were taken from each of the traps we set last night — but no lizards. Large numbers of lizards became active during the morning. In fact, they were so numerous, the class caught the following:

Uma scoparia — 149
Dipsosaurus dorsalis — 32
Crotaphytus wislizeni — 1
Crotalus cerastes — 3

That afternoon we drove into the Pinto Mts. looking for animals. We caught the only 2 Sauromalus obesus we saw (1 adult, 1 juv.). Then we proceeded to Stoddard Valley by way of Old Woman Springs + Lucerne Valley. We reached camp after dark, + found a strong, cold

Mayhew 1961

May 6 Mojave Desert, San Bernardino Co., Calif.

wind blowing. It was so disagreeable we slept inside the vehicles. Minimum temp. tonight was 45°F.

May 7 The wind subsided this morning, so we were able to find some reptiles. However, it remained rather cool, so relatively few were seen (No Sauromalus, for example).

One Gopherus agassizi that was marked last year (#34) was found today. It now measures 226 mm. (notch to notch on plastron). One other tortoise was marked & a young one was returned to the laboratory for growth data. We collected the following animals at this site:

Gopherus agassizi - 1
Callisaurus draconoides - 5
Cnemidophorus tigris - 4
Urosaurus graciosa - 1
Uta stansburiana - 4
Crotaphytus collaris - 1

On the way home we collected 3 Sceloporus magister & 14 Xantusia vigilis in a small stand of Joshua trees about 2 miles S.E. of Stoddard Well. We reached UCR at 1930 after driving 361 miles on the entire trip. The following animals were seen on the trip:

Crotaphytus collaris	Xantusia vigilis
" wislizeni	Sceloporus magister
Phrynosoma platyrhinos	Uma scoparia

May 7 Mojave Desert, San Bernardino Co., Calif.

Gopherus agassizi	*Sauromalus obesus*
Callisaurus draconoides	*Crotalus cerastes*
Dipsosaurus dorsalis	*Urosaurus graciosus*
Western tanager	*Uta stansburiana*
Western kingbird	*Lepus californicus*
Loggerhead shrike	*Citellus leucurus*
Crow	House sparrow
Brewer's blackbird	White-throated swift
Tree swallow	Barn swallow
Leconte thrasher	Say's phoebe
Pileolated warbler	Red-tailed hawk
Mourning dove	Sparrow hawk

A total of 221 specimens of 11 species were collected on the trip.

May 11 Dale Dry Lake area, San Bernardino Co., Calif.

At 0755 I left UCR to return some of the animals caught last week-end by the field zoology class. These animals have been weighed, measured (S-V length), & toe-clipped for marking. 14 young *Dipsosaurus dorsalis*, 102 young *Uma scoparia*, & 17 adult *Uma scoparia* were released. On the way out I drove Varner Road between Garnet & 1000 Palms, looking for animals. However, the wind was blowing so hard (20-30 mph) that no animals were seen for some time. I drove this road from 0845 to 1025 without catching a thing. A few *Uma inornata* were all that were seen.

(Riverside Co.)

May 11 Dale Dry Lake area, San Bernardino Co., Calif.

The wind was blowing so hard it was impossible to keep a noose open to catch them. Several large adults were seen as well as young ones. All of them were in the sun in the lee of a bush — usually on the trailer of sand on the lee side. The first one was seen at 0920 when the air temp (30") was 25.2°C. & the wind was still blowing 10-15 mph. from the N.W. I drove 27 miles on Varner Road.

After the animals were released at Dale, I checked the 7 new traps near Iron Age Mine Road. 4 young Uma scoparia were trapped, along with numerous beetles & 4 scorpions. The lizards were toe-clipped measured, & released, as were 2 that were noosed:

	#	length (mm)	sex
	150	64	♀
	151	91	♀
trapped	152	51	♀
trapped	153	53	♀
trapped	154	51	♀
trapped	155	52	♀

I left Dale at 1355, reaching UCR at 1600, after a trip of 284 miles. The wind was still blowing near Garnet, so I didn't look at Varner Road on the way home.

May 13

Glamis area, Imperial Co., Calif.

Walt Moberly, Bob Lasiewski, & I left UCR at 1045 for the dunes. We ran out of gas between Cabezon & Whitewater because no one had filled the vehicle at the garage. This slowed us down about one hour. Nevertheless, we reached the Highline Canal at 1505 and began looking for lizards. We found 4 dead *Phrynosoma m'calli* & 2 live ones as we drove between the canals (one pass). Then we collected *Uma notata* & *Urosaurus graciosa* in the dunes until nearly sundown. After eating supper in Glamis, we began night collecting at 1945. We drove once to the Highline Canal, back to Glamis, then to the top of the big dune (36 miles). We collected 9 *Coleonyx variegatus* in that distance. However, later, 3 San Diego State students told us they collected 8 from 2230 to 2330 in about 1/2 the distance on the same road. We quit night collecting at 2215.

Animals caught today:

Uma notata - 24   *Phrynosoma m'calli* - 2
Crotaphytus wislizeni - 1   *Callisaurus drac.* - 2
Coleonyx variegatus - 9
Urosaurus graciosa - 8   Total - 46

May 14 Glamis area, Imperial Co., Calif.

We arose at 0615 and ate breakfast. Then we looked for lizards in the dunes from 0755 to 1150. Lots of Urosaurus graciosa were seen today. It seemed that at least one was seen on every perennial plant that was large enough to shelter such a lizard. After 1200 we drove along the road for about 5 miles looking for other species of lizards. We found Callisaurus draconoides, Dipsosaurus dorsalis, Phrynosoma m'calli, Crotaphytus wislizeni, and Urosaurus graciosa. After gathering our soil sample in the dunes, we checked the trap at the Coachella Canal. (The trap remaining in the dunes had been pulled out & left on the sand). In it I found an adult Chionactis occipitalis, a Cnemidophorus tigris, and about a dozen beetles. The Chionactis was released. We left the canal at 1600, reaching UCR at 2000. We drove 370 miles on the trip. We caught a total of 137 animals of 9 species. Of this number, Chionactis was released, as were 46 Uma notata that we weighed, measured, & toe-clipped (23 on 5/13 and 23 on 5/14). So, we brought home the following:

Mayhew
1961

May 14

Glamis area, Imperial Co., Calif.

Uma notata – 31 (15 ♂, 16 ♀)
Urosaurus graciosa – 34 (21 ♂, 13 ♀)
Dipsosaurus dorsalis – 6 (2 ♂, 2 ♀, 2 im)
Phrynosoma m'calli – 4 (3 ♂, 1 ♀)
Crotaphytus wislizeni – 2 (1 ♂, 1 ♀)
Callisaurus draconoides – 3 (1 ♂, 1 ♀, 1 im.)
Coleonyx variegatus – 9 (7 ♂, 2 ♀)
Cnemidophorus tigris – 1 (♂)
Total 90

May 18

Palm Springs area, Riverside Co., Calif.

Walter Moberly & I left UCR at 0735 for our monthly sample of Uma inornata. We reached the collecting area in Palm Springs at 0900. At 0915 we were already finding adult Dipsosaurus dorsalis active, but few Uma (except small ones). We collected through Palm Springs Panorama & P.S. Highlands with little success with Uma, but with fair success with Dipsosaurus. At 1230 we drove down Ramon Road to 1000 Palms, then along Varner Road to "Granddaddy Dune" 5 mi. N.W. of 1000 Palms. We gathered a soil sample here, then began to poke under Larrea with our hooks to stir out some Uma. We were fairly successful with this operation. We caught 7 adult Uma in this manner, as well as 3 young.

Mayhew
1961

May 18

Palm Springs area, Riverside Co., Calif.

We left "Granddaddy Dune" at 1530 and drove slowly down Varner Road toward Garnet. By this time *Uma* were beginning to be seen on the sand in the lee of bushes, so we caught several small ones & 1 large ♂ along the road. We reached UCR at 1725 after a 124 mile trip today.

Some of the smallest *Dipsosaurus* I have seen were captured today (3 of them 3 mi. N.W. of 1000 Palms). I don't know why they are still so small. The entire area covered today is extremely dry. Most of the perennials are in wilt. Some of the animals caught were quite thin, but others caught at the same location were nice & fat. We didn't see any adult ♀ *Uma* for a long time today. If we hadn't dug some of them out of the sand at the big dune, we'd have seen only one (which we caught). Adult animals caught today:

Uma inornata – 14 (9♂, 5♀)
Dipsosaurus dorsalis – 14
Crotaphytus wislizeni – 1 (♂)
Callisaurus draconoides – 1 (♂)
Cnemidophorus tigris – 1 (♂)
Urosaurus graciosa – 1 (♂)
Total – 32

Young caught:
Uma — 15
Dipsosaurus – 8
Total – 23

56 animals were caught today. (1 *Dipsosaurus* was given away.)

Mayhew
1961

June 1

Laguna Mts., San Diego Co., Calif.

Walter Moberly, Steven Peterson & I left UCR at 1700 in International Travelall # 383, headed for Mexico & Arizona for a week. We dropped some marked Uma inornata & Dipsosaurus dorsalis at Granddaddy Dune near 1000 Palms, then drove up the Palms to Pines Highway to the Anza turn-off. We saw a relatively young (~24") Crotalus viridis on the road near Anza shortly after dark. We chased it off the road, then drove to the Laguna Mts., where we camped for the night. We drove 170 miles today.

June 2

Northern Baja California, Mexico

The next morning we crossed into Baja Calif. at Tecate, then drove east to Rumorosa. We drove south about 12 miles to a campsite near the Teta de la India where we had seen Sceloporus orcutti previously. The weather was relatively cool, so we didn't see any S. orcutti this afternoon. However, we were able to capture 27 Xantusia henshawi by prying off granite flakes. Almost every flake had a lizard under it. Some flakes contained 2 lizards. A couple of flakes revealed 2 to 5 dead lizards beneath them. It looked as if some

June 2

Northern Baja California, Mexico

other animal (spider?) had collected them. Two *Uta mearnsi* also were collected from beneath granite flakes. That night the zipper on my sleeping bag broke, so I slept in the front seat of the Travelall. Drove 100 mi. today.

June 3

This morning was quite warm, so we really looked for *Sceloporus orcutti* in earnest from 0800 to 0930. During that time the air temp. (30") ranged from 21.0 to 23.5°C. We saw 6 animals but were unable to capture any. I have never seen such spooky animals. They would disappear over a rock while we were still over a hundred feet away. In the Riverside area they move from crevice to crevice in the same rock pile until they get in one that is too deep for us to work, or until we capture the animal. at this site, however, they would run over 2 or 3 rock piles until we completely lost them from view. I've never tried to capture more exasperating lizards in my life. As we drove the 12 miles back to Rumorosa after 0930, we saw 7 adult + 2 juvenal *S. orcutti*. We were able to capture 1 adult ♂, but this took us a considerable period of time.

June 3 Northern Baja California, Mexico

These animals were not nearly as abundant as I had expected. Even during this very dry year in Riverside we see as many in a given locality as we did near Rumorosa. We saw only 3 more adults of this species as we drove from Rumorosa to Mexicali. We turned south at Mexicali and headed for the Laguna Salada on Highway 5. We stopped at the sand dunes at Los Medanos (88 kilometers [55 miles] south of Mexicali) to look for Uma notata. It was getting rather late in the afternoon so only a very few Uma were seen. The wind was blowing fairly hard, so we couldn't tell from tracks in the sand the relative abundance of lizards. Then we drove further south to La Ventana (18 miles south of Los Medanos) where we camped in a wash 3 miles to the west. We drove 151 miles today.

June 4 We returned to Los Medanos this morning to look for Uma notata. We looked from 0800 to 0930. The air temp. (30") was 31.0°C. when we began looking. Few animals of any kind were seen and almost as few tracks. Although this location looks reasonably lush

June 4 — Northern Baja California, Mexico

for a sandy habitat, there seem to be relatively few animals living here. The dominant perennials are *Prosopis juliflora*, *Larrea divaricata*, *Ephedra* sp. with such plants as *Coldenia plicata*, etc. forming an understory. The dominants all looked in good shape with lots of leaves. However, animals + tracks were not at all plentiful. We captured 2 *Uma notata*, 1 *Cnemidophorus tigris*, + 1 *Dipsosaurus dorsalis*. We also saw 4 other *Uma*, 1 *Dipsosaurus*, + 1 *Cnemidophorus*. at 0930 we drove north toward Mexicali until we reached La Puerta. There we turned east to cross the Colorado River ~~near~~ Kilometro 57 and Riito.

Northern Sonora, Mexico

We drove through farmland until we reached San Luis. Then we drove east on Highway 2 into the Gran Desierto. Fourteen miles east of San Luis we tried to leave the highway and drive south to some sand dunes that looked like the Kelso Dunes in the Mojave Desert. However, about a mile from the highway the sand became so soft under the heavy load we were carrying that the vehicle became stuck even in 4-wheel drive. We

June 4

Northern Sonora, Mexico

still are not sure of this vehicle's ability in sand, & since it was an awfully long ways to help, we decided we wouldn't try to go any farther. We let air out of the tires (down to 22 pounds in each rear tire) and churned our way back to the highway. Then we continued east through more of the Gran Desierto. That part of it certainly looks dry now and gives the appearance of being quite dry most of the time. The Larrea divaricata is small, widely spaced, and lacks many leaves. A few animals were seen and a few tracks when we stopped to look, but they were not at all numerous. We caught 3 Callisaurus draconoides, 2 Urosaurus graciosa at one of the stops (26 mi. east of San Luis). We passed one building that was a bus stop about 50 miles east of San Luis & one building that was labelled El Puerto 66 miles east of San Luis. These were the only buildings we saw between San Luis & our turn-around 77 miles east of San Luis. At that point we decided to drive out to some dunes about 1/2 mile off the highway.

June 4 Northern Sonora, Mexico

Everything went fine until Walt killed the engine. Then the starter wouldn't budge. We tried to rock it loose without success. Finally, after much digging, pushing, & cussing, we jacked up the right rear wheel & spun it to act like a crank. The motor started & we lost no time getting back onto the pavement. We stopped by some sand next to the road & caught 5 Uma notata about sundown. After sundown we night collected the road back to San Luis (77 miles). We began looking for animals at 1930 and looked until 2345. We caught 8 Coleonyx variegatus and 1 Trimorphodon lambda. We also saw 4 Crotalus cerastes & 1 Crotalus scutulatus (DOR). We crossed the border into Arizona at San Luis, then camped about 10 miles east of Yuma. We drove 288 miles today.

June 5 Southwestern Arizona

We drove east from our campsite on Highway 80 until we reached the Gila Mts. We stopped to look for lizards along the road. We were able to capture 3 Sauromalus obesus, 2 Crotaphytus collaris & 1 Uta stansburiana (all the animals we

June 5

Southwestern Arizona

saw) in these mountains. During the hot part of the day we drove to Gila Bend, then south on state highway 85 through Ajo to Organ Pipe National Monument. We washed up & ate in Organ Pipe while we were waiting for it to get dark. Then we drove to Lukeville & began night collecting. Between Lukeville and Gila Bend we collected 1 Chionactis palarostris, 1 Phyllorhynchus decurtatus, 1 Phyllorhynchus browni, 2 Coleonyx variegatus & salvaged 1 Phrynosoma solare that was DOR. We collected from 2030 to 0030 and drove 84 miles in the process. We camped 3 miles south of Gila Bend. We drove 273 miles today.

June 6

We drove north of Gila Bend this morning looking for lizards. We saw several Callisaurus draconoides & Dipsosaurus dorsalis, but they were the spookiest lizards of these species I have ever seen. The Dipsosaurus in particular were much different in this respect than the ones we find in southern Calif. They would go down a hole long before we were near enough to capture them. I was quite surprised with their reaction. We drove north to Arlington, then west

June 6 Southwestern Arizona

over fairly good dirt road to Agua Caliente, then south back onto Highway 80 at Sentinel. Almost no lizards were seen in this entire stretch. We returned to Yuma, then crossed back into California about 2130.

Southeastern Imperial Co., Calif.

We night collected from Winterhaven, through Bard, to Laguna Dam. This is all agricultural land. We collected 2 Bufo woodhousii & 1 Bufo alvarius, but saw nothing else. We camped 7 miles south of Picacho Camp, after night collecting over 94 miles of road from 1905 to 2315 (some in Arizona). We drove 277 miles today.

June 7 We drove to Picacho Camp, along the shore of the Colorado River, this morning. Then we returned to Winterhaven. The country to & from Picacho was quite pretty, but yielded few animals (we caught 3 Sauromalus obesus & 1 Uta stansburiana, & saw 1 Crotaphytus collaris). From Winterhaven we drove through Ogilby to Glamis, where we ate lunch, then began to look for lizards in & near the Algodones Dunes. I started looking along the road at 1430 while Walt & Steve had a swim in the Coachella Canal. At this time

June 7

5 mi. W. of Glamis, Imperial Co., Calif.

the air temp (30") was 36.2°C. and the black-top at the edge of the pavement was 61.0°C. Three Callisaurus draconoides were seen on the black-top between 1455 and 1500. at 1545 a Phrynosoma m'calli was seen on the road. at that time the air temp. (30") was 36.4°C., the temp. of the black-top was 52.5°C. The animal was quite active and it escaped when a large gravel truck passed close by. However, 3 live P. m'calli were captured during the afternoon, & 4 dead ones were seen on the road. Two of these were in good enough condition to be saved. Steve & Walt looked for Uma notata in the dunes from 1645 until sundown (1800). They were able to capture about 20, most of which were young ones, for growth data. We began night collecting at 1950. We made one round trip from the top of the big dune to Glamis, through to the Highline Canal, back to Glamis, then to the top of the big dune (28 miles). This took us until 2235, and during this time we caught 22 Coleonyx variegatus & 1 Chionactis occipitalis (saw 2 Chionactis DOR). We found them (Coleonyx) considerably more abundant this month than last. We drove 136 miles today.

Mayhew
1961

June 8

5 mi. W. of Glamis, Imperial Co., Calif.

Walt & Steve started looking for *Uma notata* & *Urosaurus graciosa* in the dunes at 0700 while I patrolled the road at the same time looking for *Phrynosoma m'calli*. They found relatively few large *Uma*, but lots of young ones. I saw 2 DOR *Phrynosoma m'calli* (1 of which I could save) and caught 9 live ones. The last one seen (at 0930) escaped me by going around the car. By this time the temps. were getting fairly high. I just made one round trip between the canals, then picked up the boys. We looked for *Dipsosaurus dorsalis* a few minutes before starting for home. We reached UCR at 1740. We drove 194 miles today, and 1,589 miles on the entire trip. We captured 173 animals of 22 species during the trip, as follows:

air(30")-30.0°C.
road-50.0°C.
air(1cm)-35.0°C.

Chionactis occipitalis - 2
Chionactis palarostris - 1
Phyllorhynchus decurtatus - 1
Phyllorhynchus browni - 1
Phrynosoma solare - 1
Phrynosoma m'calli - 15
Bufo alvarius - 1
Bufo woodhousii - 2
Cnemidophorus tigris - 3
Uta stansburiana - 3
Trimorphodon lambda - 1

Mayhew
1961

Journal

June 8

Mexico – Arizona – Calif. Trip

Uma notata – 21 (18 more released) *Uta mearnsi* – 4
Dipsosaurus dorsalis – 9
Crotaphytus collaris – 4
Crotaphytus wislizeni – 2
Urosaurus graciosa – 12
Sceloporus orcutti – 1
Xantusia henshawi – 28
Coleonyx variegatus – 33
Sauromalus obesus – 6
Callisaurus draconoides – 4

I was impressed with the relatively small number of animals and tracks seen in the Gran Desierto in Sonora, & in the portions of Baja California that we visited. The same was true for the parts of arizona that we covered. The lack of animals (reptiles) that were seen might be explained by the fact that we were looking at the wrong time of the day. However, the tracks should have been visible at any time of day. Bird, insect & mammal tracks were seen at times when few, if any, reptile tracks were seen. No place visited compared with the Algodones Dunes for numbers of reptiles or of tracks. This area must be fantastically rich with reptiles.

Mayhew
1961

June 15

Dale Dry Lake, San Bernardino Co., Calif.

At 0515 Walt Mobely & I left UCR for Dale. We arrived at our collecting site at 0730, and found to our surprise that most of the animals had returned underground by then. The air temp. (30") at that time was 36.0°C. Nevertheless, we looked for lizards from 0730 to 0930, then we drove up Iron Age Mine ~~Road~~ to look for Sauromalus obesus. We saw no adult Sauromalus, but we caught one of two young animals that we saw near the ~~mine~~. We quit looking for lizards at 1000, then checked 7 of the traps we have set near the old campsite. One adult Citellus ~~leucurus~~ tereticaudus & one dead baby C. tereticaudus were in one trap, along with several beetles. After we gathered our soil sample, we drove to 29 Palms to try to cool off a bit (max. temp. today - 110°). We returned to Dale about 1630, but it was still so hot no animals were active (air temp. [30"] was 108°F. at 1630). We checked the other 7 traps & looked for lizards until sundown, but few of them were active. We took 6 Uma scoparia from traps (1 adult) as well as 3 Chionactis occipitalis (2 dead). In fact, the adult

June 15 Dale Dry Lake, San Bernardino Co., Calif.
Uma, 2 immature Uma, 1 dead Chionactis, & 1 live Chionactis were taken from the same trap. We weighed, measured, toe-clipped, & released all the young Uma scoparia & Dipsosaurus dorsalis that we caught today. Almost no adult Uma scoparia were seen today, nor were there many tracks of adult animals to be seen.

June 16 We looked for lizards, beginning at 0630. No adult animals were seen by 0700, so we sat in the shade of a Dalea spinosa, waiting for the weather to warm up. [air temp (30") was 28.5°C. at 0700]. We began looking for lizards again at 0730 when weather conditions were: air (30") temp. - 32.0°C.; air (1cm) temp. - 33.0°C.; soil surface temp. - 38.0°C.

The first adult Uma scoparia was seen at 0745, sitting on the open sand in the sun. Relatively few adult Uma were seen this morning, and their tracks were nearly as scarce. I don't know what has become of the many animals that have been seen in this area in the past. Several of the adults that were caught were rather thin. We stopped looking for animals at 1100 and weighed, etc. the young animals we caught this morning.

[air temp. (30") - 38.0°C.]

June 16 Dale Dry Lake, San Bernardino Co., Calif.

In all, we marked & released 14 young Uma scoparia and 11 young Dipsosaurus dorsalis. In addition, we recaptured and re-weighed 6 young Uma scoparia & one adult Uma scoparia. The last adult Uma scoparia was seen at 1000, the last adult Dipsosaurus dorsalis was seen at 1030. We returned to UCR at 1335 with the following animals:

Uma scoparia – 15 (6 ♂, 9 ♀)
Dipsosaurus dorsalis – 13
Urosaurus graciosa – 3
Crotaphytus wislizeni – 1
Callisaurus draconoides – 1 ~~(juv.)~~
Sauromalus obesus – 1 (juv.)

We drove 287 miles on this trip.

June 19 Palm Springs area, Riverside Co., Calif.

Walt Moberly & I left UCR at 0510 for our monthly collecting trip to this region. We reached "Granddaddy Dune" at 0615 and began looking for lizards at 0620. at that time the air temp. (30") was 32.0°C. Several juvenal(?) Uma inornata were captured, but only one adult Uma was seen by 0730. The Larrea divaricata looks very bad at this location, there are few rodent burrows remaining beneath the plants, and almost no tracks of adult lizards. Therefore, we felt we might catch more animals in another location.

June 19

Palm Springs area, Riverside Co., Calif.

So, we drove to 1000 Palms (collecting 4 *Phrynosoma platyrhinos* along the way), then along Ramon Road to Date Palm Dr. & into Palm Springs Panorama. We found a few more *Uma inornata* here (3 killed on the road), but not many more. One adult *Uma* ♂ (108 mm. S-V length) was found that had starved to death — it was nothing but skin & bones. We passed through the Panorama to Vista Chino Drive, looking for lizards. By this time several *Dipsosaurus dorsalis* were seen. We collected *Dipsosaurus* along Vista Chino until 1100 when no more animals were seen. By this time the air temp. (30") was 40.0°C. We weighed, measured, & toe-clipped 3 juvenal *Dipsosaurus dorsalis* & 10 ~~juvenal~~ immature *Uma inornata* as well as 1 recaptured *Uma* at Lloyd Tevis' house. Then these were released at "Granddaddy Dune" when we stopped to get a soil sample. All of the areas looked very dessicated at this time. We returned to UCR at 1445 with the following animals: we drove 148 miles.

Uma inornata — 8 (5♀, 3♂)
Dipsosaurus dorsalis — 21
Urosaurus graciosa — 2 (♀)
Phrynosoma platyrhinos — 4 (2♂, 2♀)
(not a very good day's work)

July 7 UCR, Riverside Co., Calif.

This morning the following animals were taken from cages in the lab. and placed in outdoor cage #3:

10 *Dipsosaurus dorsalis*
5 *Uma inornata*
8 *Uma notata*
4 *Uma scoparia*

This will permit us to use the indoor cages more readily for recording *Phrynosoma m'calli* body temps., which Dave Young will be doing for the next couple of weeks. We will be using Univ. of Michigan's Brown recorder for the job.

July 10 Glamis area, Imperial Co., Calif.

At 1220 Donna Hobbs, Warren Blakely, Walt Moberly & I left UCR for the dunes. We reached the Highline Canal at 1620. The temp. had been 118°F. at Brawley, but was only 43.0°C. (110°F.) when we left the canal to look for lizards at 1740 (we had been swimming in the meantime). Two *Callisaurus draconoides* were seen on the road at 1745 when soil temp. was 50.5°C., asphalt temp. was 49.5°C., & air temp. (30") was 43.0°C. Three *Phrynosoma m'calli* were collected between then and sundown (1850). At sundown the air temp. was still high (38.8°C.).

July 10

Glamis area, Imperial Co., Calif.

We left Walt in the dunes to try to catch young Uma while the rest of us patrolled the road some more, but neither Walt nor us were very successful. We caught only 1 Chionactis occipitalis & he caught 1 Uma notata. We began night collecting at 2025 & quit at 2220. We saw only 3 Coleonyx variegatus (all ♀) in spite of driving 34 miles. The minimum temp. tonight was 87°F. (1 adult Uma on road tonight).

July 11

We arose at 0500 (sunrise - 0450). We patrolled the road for Phrynosoma m'calli from 0530 to 0730. We caught 3 of them during this period. We began looking for Uma notata in the dunes at 0730. at this time, air temp. (30") was 33.2°C., pavement temp. was 38.0°C., air (1 cm) was 34.2°C., soil surface temp. was 39.0°C., 10% overcast, SE wind 8-12 mph. We quit looking for Uma at 0945 because none were being seen. Those that had been seen this morning were about as spooky as I have ever seen them. We caught very few of those we saw. The flies were the worst I have ever seen in these dunes. They were terrible!!! After we collected

July 11 Glamis area, Imperial Co., Calif.
our soil sample, we stayed in the canal until lunch time, then ate at the Glamis store. after lunch we slept beneath the bridge over the Coachella Canal, We looked for Uma notata in the dunes from 1800 to 1910 (sundown - 1850). We were rather successful this time, but the flies drove us frantic. We night collected from 2030 to 2145, We saw 2 Crotalus cerastes and caught 1 juvenal Coleonyx variegatus - our 1st this year. No adult Coleonyx were seen. The air temp. (30") held at about 91°F. during the entire night collecting trip. (We drove 28 miles tonight.) The maximum temp. that we recorded today was 111°F., the lowest tonight was 83°F.

July 12 We arose at 0545 when the wind & sand drove us off the top of the big dune. We looked for Phrynosoma m'calli from 0600 to 0630 as we drove to the Highline Canal. There was no sign of any lizards. at this time it was 90% overcast, SE wind at 8-10mph., air temp. (30") of 84°F. We left the canal at 0705 and reached UCR at 1015. We had to return to

July 12 Glamis area, Imperial Co., Calif.

UCR instead of going on to Dale Dry Lake as planned because I developed such a severe case of swimmer's itch I could hardly walk (pants rubbed against my swollen knees). We drove 467 miles on this trip, and collected the following animals:

Uma notata - 27 (15♂, 12♀)
Chionactis occipitalis - 1
Urosaurus graciosa - 5 (3♂, 2♀)
Coleonyx variegatus - 3 ad. ♀, 1 juv. ♀
Callisaurus draconoides - 1 (♀)
Phrynosoma m'calli - 6 (5♀, 1♂)

Total 44 animals, 6 species

July 17 Palm Springs area, Riverside Co., Calif.

Walt Moberly, Dave Young & I left UCR at 0530 and began looking for lizards 4 mi. E. of 1000 Palms at 0700. We looked from then to 0845, but saw very few lizards. We failed to catch only one of those we saw (Uma inornata). We caught:

Urosaurus graciosa - 1
Crotaphytus wislizeni - 1 (♀)
Uma inornata - 2 (♂)

This sandy area looked like it should support a large Uma inornata population, but these animals weren't to be seen. The lack of tracks

July 17

Palm Springs area, Riverside Co., Calif.

indicated that few of these animals occur here at present. The perennial vegetation seems to be suffering from the prolonged drought, + there is almost no trace of annual vegetation. Then we drove to Palm Springs Panorama. We collected in this general area from 0900 to 1200. During this time we captured:

Uma inornata - (1 immature)
Phrynosoma m'calli - 1 (♂)
Urosaurus graciosa - 1
Dipsosaurus dorsalis - 28 (9 ~~immature~~)

Few *Uma inornata* tracks could be found in regions where lots of these animals have been seen in the past. *Dipsosaurus dorsalis*, however, still seem to be quite abundant. They are vegetarians and may be able to find enough food in the gardens of houses ~~near~~-by.

Dale Dry Lake, San Bernardino Co., Calif.

We reached this site at 1700 and immediately began to look for lizards. We also checked the 14 traps set in the area. *Chionactis occipitalis* was most numerous in the traps (9) outside of beetles. Unfortuntly, however, they were all dead. The remains of one

July 17 Dale Dry Lake, San Bernardino Co., Calif.
large Uma scoparia and one immature were they only other reptiles captured. Fair numbers of beetles were in each trap. We looked for lizards until 1830, but saw & caught only 2 immature Uma scoparia. The maximum temp. today was 110°F., the minimum tonight was 82°F.

July 18 We arose at 0515, and looked for lizards from 0615 to 1030. We saw only about half a dozen animals we failed to catch. adult Uma scoparia & Dipsosaurus dorsalis were very hard to find. Not as many immature Uma scoparia were seen as we expected. Over 170 animals (mostly ~~immat.~~ young) have been marked & released this spring at our usual collecting site. However, none of the marked Uma were caught (1 marked Dipsosaurus was caught, though); 12 new ones were marked.

animals caught were:

Uma scoparia – 10 (6 ♂, 4 ♀) (+12 [imm.] young)

Urosaurus graciosa – 1

Dipsosaurus dorsalis – 4 (+1 young marked)

Callisaurus draconoides – 1 (♀)

Palm Springs area, Riverside Co., Calif.

We looked for Uma inornata in the dunes north of Palm Desert from 1520 to 1545 without seeing any.

July 18 Palm Springs area, Riverside Co., Calif.
Then we drove to Granddaddy Dune near 1000 Palms. We looked for Uma inornata here from 1620 to 1825. We caught 22 animals (3 ♂, 7 ♀, 12 ~~juvenile~~ immature) at this time. We reached UCR at 1950 after driving 372 miles on this trip. Maximum temp. today was 110°F.
Total animals caught on this trip:
Uma inornata - 24 (12 released)
Uma scoparia - 22 (12 released) Cnemidophorus tigris - 1
Dipsosaurus dorsalis - 34 10 (released)
Urosaurus graciosa - 6 Phrynosoma m'calli - 1
Callisaurus draconoides - 1
Crotaphytus wislizeni - 1
Thus, 90 animals of 8 species were caught, 56 of which were brought back.

July 21 Glamis area, Imperial Co., Calif.
Tony Roth & I left UCR at 1250 to collect reptiles. We reached the Highline Canal west of Glamis at 1650 and immediately began to look for Phrynosoma m'calli along the road. At this time the air temp (30") was 39.0°C., substrate temp. (blacktop) was 50.0°C. Six Phrynosoma m'calli were caught between then and 1834. Sundown occurred at 1847. Several

July 21 Glamis area, Imperial Co., Calif.
juvenal Callisaurus draconoides and 1 juvenal Phrynosoma m'calli were seen this afternoon. These are the first juvenals of both species seen this year. We quit looking for diurnal reptiles at 1900. After eating dinner we began night collecting at 2045, and looked for reptiles until 2215. Two adult ♂♂ Coleonyx variegatus were all that were seen (13 miles driven day collecting, 31 miles driven night collecting). The weather was quite nice this afternoon - maximum temp. today was 103°F. The minimum temp. tonight was 80°F.

July 22 At 0030 Bill Truesdell, Ed Eberle, & Ken Osgood arrived from UCR. We arose at 0430 and began looking for Phrynosoma m'calli on the road at 0445 (sunrise at 0450). I spent the next 14 hours driving the 7 miles between the Highline & Coachella Canals looking for reptiles. I stopped only long enough to moisten the collecting cans occasionally, pick up animals along the road, and scribble notes. Most of this time I drove at 5-10 miles per hour, but during the middle of the day I

July 22 Glamis area, Imperial Co., Calif.

increased the pace to 15-20 miles per hour. Phrynosoma m'calli were captured from 0500 to 0915 in the morning, and 1630 to 1755 in the afternoon. 3 Dipsosaurus dorsalis were seen in the morning that weren't caught, However, 3 were caught. One Dipsosaurus and 4 Callisaurus draconoides (1 ad + 3 juv.) were seen at 1015. another Callisaurus was seen at 1100. By this time the air temp.(30") was 36.8 °C., the soil surface temp. was 55.0 °C. another Callisaurus was seen on the blacktop at the edge of the pavement at 1225 when the air temp. (30") was 39.0°C., + the blacktop was 50+°C. at 1400 the air temp. (30") was 39.0°C., air (1cm) was 41.0°C., soil surface temp. was 55.0°C., road temp. was 56.2°C. a few minutes later (1420) a Dipsosaurus dorsalis ran across the road in front of the carry-all. Two Callisaurus draconoides were seen on the sand in the sun at 1540. at this time the air temp. (30") was 38.2°C., soil surface temp. was 53.0°C. another Callisaurus was seen on the blacktop at 1605 and 2 more Callisaurus were on the

July 22 Glamis area, Imperial Co., Calif.

blacktop at 1610. No Dipsosaurus were seen during the afternoon except for the one at 1400. The most numerous animals seen today were Phrynosoma m'calli. The boys in Bill Truesdell's car caught 4 P. m'calli today (all in the morning). People in my car caught 7 this morning, & I caught 4 this afternoon. Thus, we caught 15 Phrynosoma m'calli today, which is the most we have ever caught in one day. I quit looking for reptiles at 1845 (sundown was 1845), after driving 108 miles between the two canals today (7 miles apart). The highest temperature today was 103°F. We were chased off the big dune by the wind tonight, so we night collected from there to our new campsite in a gravel pit near the Highline Canal 10 miles away. We covered this distance from 2130 to 2210. We caught an adult ♂ Uma notata on the pavement at 2130, & a juvenal Coleonyx variegatus a few moments later. These were the only reptiles seen at this time. Minimum temp. tonight was 76°F.

July 23 — Glamis area, Imperial Co., Calif.

We arose at 0545 and began to look for *Phrynosoma m'calli* at 0620. Our car caught 2 before we drove back to the big dune at 0730. We noosed several *Uma notata* (some for Rudy Ruibal, some for me), then began to patrol the road again. We caught 4 more *Phrynosoma m'calli* and picked up 1 that had been run over by a car recently. Then we looked for *Dipsosaurus dorsalis*, which were not at all numerous this morning. They sky was quite overcast (as it had been yesterday morning), so it was a bit cool for *Dipsosaurus*. We quit looking for animals at 1115, and left for home. We reached UCR at 1500 after driving 529 miles this weekend (14 miles patrolling the road this morning). In addition to 1 *Masticophis flagellum* for Tony Roth & several (number unknown) *Uma notata* for Rudy Ruibal, we brought home the following animals:

Phrynosoma m'calli – 27 (3 juvenal) + 1 dead
Dipsosaurus dorsalis – 7 (1 immature)
Uma notata – 6 (5♂, 1♀)
Callisaurus draconoides – 4 (1 juvenal)

July 23 Glamis area, Imperial Co., Calif.
Coleonyx variegatus - 4 (1 juvenal)
Urosaurus graciosa - 1
Cnemidophorus tigris - 1
Crotaphytus wislizeni - 1
This makes 51 animals of 8 species added to our research collection. We saw a total of 13 juvenal Callisaurus draconoides and 3 juvenal Phrynosoma m'calli. I saw 2 juvenal reptiles run across the road in front of the carry-all in the dunes. However, it was rather late, so I couldn't be sure if they were young Uma notata or not. None were seen during our trips to the dunes during daylight hours, however. I am frankly amazed at the number of Phrynosoma m'calli that have been collected along that 7 mile stretch of road between the two canals. I know of at least 66 animals (live) that have been collected there by us the past two months. We have now collected 85 (live) of this species on that part of the road in 1961. Tracks in the sand beside the road indicate there are lots of animals left.

No flies this trip!

July 23

Glamis area, Imperial Co., Calif.

If we include the dead animals that have been seen on the road as well, since these have been removed from the population, the counts are 75 animals removed in the past two months (9 dead ones) and 114 animals in 1961 (29 dead animals). This accounts only for those animals we have seen — it doesn't take into account the number that must be killed each week while the gravel trucks are traversing the road. Much of our collecting has been on the week-end when gravel trucks aren't using the road. Therefore, the dead ones have been run over by the few cars that use the road during the summer. We have always found more dead ones on days when the gravel trucks were running. The carcasses never remain on the road more than a couple of days at the very most, so the same relative number probably are killed each week. This may not make a great deal of difference in the entire population, though, since the great majority have been seen at the sides of the road instead of on the pavement.

Aug. 11 Glamis area, Imperial Co., Calif.

Ed Eberle & Bill Truesdell were going to the dunes tonight, so I decided to go down this afternoon in the carry-all. I left UCR at 1445 and drove to Ocotillo Wells by way of Warner's Hot Springs. I reached Ocotillo Wells at 1700. at that time the air temp.(36") was 40.0°C. I drove the road south of Ocotillo Wells very slowly, looking for Phrynosoma m'calli, since we had found them here in the past. The area is the driest I have ever seen it. Few Larrea have green leaves. No P. m'calli were seen going or coming on this road. However, 6 Callisaurus draconoides were seen between 1700 and 1720, 11 were seen by 1820. No other reptiles were seen. Sundown occurred at 1820, at that time the air temp.(36") was 38.6°C., soil surface temp. was 40.6°C. at that time I headed for the Algodones Dunes, which I reached at 2030. The air temp.(36") was 35.0°C. I night collected between the Highline Canal & Glamis until 0005, when Ed & Bill arrived. I drove 248 miles today. Minimum temp. tonight was 82°F. I drove 65 miles while night collecting.

Aug 12 We arose at 0520. I began looking for lizards (especially Phrynosoma m'calli)

Aug. 12 Glamis area, Imperial Co., Calif.

along the road at 0600, with the boys starting somewhat later. Several juvenal Callisaurus draconoides were seen along the road. One juvenal & one adult Phrynosoma m'calli were seen DOR. We quit looking for lizards at 0945. By that time we had 12 live Phrynosoma m'calli. The 1st one was seen at 0700, the last one at 0820. Several of them were juvenals. The boys spent the rest of the day at the Highline Canal while I explored for new roads that might yield additional P. m'calli. The only likely prospect is Highway 98 east of Calexico. The last 8 miles before it joins Highway 80 look very good. No other paved roads could be found in sandy creosote bush scrub, which these animals seem to prefer. It takes about 30 min. to drive from Highway 98 to the Highline Canal near Glamis. I returned to the Highline and began looking for P. m'calli on the road at 1535 while I drove to the dunes for a soil sample. I really began looking for lizards at 1710 along the road, & quit at 1845. Only 1 P. m'calli was found this afternoon (at 1805). The air temp. (36") at 1845 was 38.2°C. The maximum temp. today was 42.5°C., the minimum tonight was 82°F. I drove 166 miles today

Aug. 13 Glamis area, Imperial Co., Calif.

We arose at 0520, & I began to look for lizards at 0600. Since 13 live & 2 DOR P. m'calli were found yesterday, I didn't think we would have much chance finding any more today. However, by the time we quit looking at 0930, we had caught 15 more, for a total of 28 live & 2 DOR for the two days spent looking. The earliest seen today was at 0625, the latest at 0920. This is the greatest number we have ever captured in a single trip. Thus, we have collected or seen dead 140 animals of this species since the first of the year (113 live, 27 dead), 105 of them in the past 3 months (94 live, 11 dead). It appears they are not at all rare in the proper habitat. They were the most abundant animal we saw between the canals. I left the Highline Canal at 0945 & reached UCR at 1355. I drove 184 miles today and 598 miles on the trip. 50 animals of 7 species were collected:

Phrynosoma m'calli - 28 (10 juv. - 4♂, 6♀; 18 ad. - 4♂, 14♀)
Urosaurus graciosa - 4 (2♂, 2♀)
Coleonyx variegatus - 5 (3♂, 2♀)
Uma notata - 3 (2 ad ♂; 1 juv.)
Dipsosaurus dorsalis - 7
Callisaurus draconoides - 2 (2♀)
Crotaphytus wislizeni - 1 (juv. ♂)

Aug. 14 Palm Springs area, Riverside Co., Calif.

Walt Moberly & I left UCR at 0525. We looked for *Uma inornata* in Palm Springs Panorama from 0705 to 0915. Several animals (adults and young) were captured. These were the first young of the year that we have seen in 1961 for this species. Then we drove to Palm Desert to look for *Dipsosaurus dorsalis*. Cal & Ruth De Witt were catching *Dipsosaurus* to send back to Michigan the next day with Bob Lasiewski at the same spot. There were a great many lizards at this location (south of the A & W root beer stand). We looked for *Dipsosaurus* from 0930 to 1200. The weather was fairly cool that day, so lizards were still active when we left. We reached Dale Dry Lake in time to look for *Uma scoparia* from 1555 to 1745. One adult *Uma* was taken from one of the traps. No *Chionactis* in any of the traps this time. Very few *Uma* were seen running about this evening. Maximum temp. today was 102°F. Minimum temp. tonight was 68°F. at approximately 2300 it began to rain, accompanied by thunder and lightning. This continued until

Aug. 15 Dale Dry Lake, San Bernardino Co., Calif.

about 0400. I slept in the front seat of the carry-all & Walt slept in the second seat. We arose at 0715 & finished checking the traps while we waited for the weather to warm up sufficiently for lizards to get active. We finally collected enough adult *Uma* for a sample, so we left for home at 1300. We checked the rain gauge at Mrs. Joe De Salliers on the way (4.7 miles from soil sampling site). We found 0.86 inches of rain fell this morning & last night. We learned that 29 Palms had received over 2 inches of rain in 4 hours. The soil was moist to a depth of 10 inches at De Salliers. We reached UCR at 1600 after a total trip of 268 miles. We brought back 119 animals of 4 species:

Urosaurus graciosa - 1 (Dale)
Uma scoparia - 59 (18 adult, 41 (immat.) young)
Uma inornata - 18 (11 adult, 7 young)
Dipsosaurus dorsalis - 41 (1-Dale; 2-Palm Springs; 38-Palm Desert [18 ad, 8 ad?, 11 immature, 1 juvenal]).

Some of the young will be kept in the laboratory (the smallest ones), but the remainder will be toe-clipped, measured & returned to Dale & "Granddaddy Dune".

Aug. 20 Glamis area, Imperial Co., Calif.

Walt Moberly, Fritz Zaebst & I left UCR at 1545 and dropped off some marked Uma inornata at "Granddaddy Dune" as we passed on our way to Glamis. We reached the Highline Canal at 1930, and began to night collect immediately. We looked for lizards from then until 2015. All we found were 1 live Coleonyx variegatus and 1 DOR Phrynosoma m'calli. The minimum temperature tonight was 88°F. We drove 172 miles today.

Aug. 21 We arose at 0530 and ate breakfast. We began looking for lizards in the dunes at 0630, & searched until 0945. The humidity was so high we felt miserable walking in the dunes. We saw lots of juvenal Uma notata & brought 6 of them back to the laboratory. Not too many adults were to be seen. Clouds were all around, so the weather felt oppressive to us, but I doubt if this affected the lizard activity much. We drove to Glamis & learned that there had been heavy rains in the Chocolate Mts. very recently. The water had

Aug. 21

Glamis area, Imperial Co., Calif.

flowed across the Amos - Glamis road and into the east side of the dunes. Mr. Van der Poel in the Glamis Store told us that some years there are a couple of big lakes (one about 4 miles south of Amos, the other about 6-7 miles south of Glamis) & several smaller lakes against the east side of the dunes after several heavy rains have fallen in the Chocolates. He said this occurred roughly once every 10 years. The biggest lakes have been 12 feet deep some years and cover considerable area. We drove to Amos and checked a wash about 1 mile west of there. Grass was quite lush & about 10 inches high over much of the flat land close to the dunes. Palo verde & ironwood trees were in full leaf. There was evidence of water having stood 18" or 2 feet deep in spots recently. All in all, things looked quite lush right up to the edge of the dunes. We didn't have time to examine the areas where the large lakes are formed, since we wanted to check over some habitat east of

Aug. 21

Glamis area, Imperial Co., Calif.

Calexico on Highway 98. We weighed, measured & toe-clipped 11[redacted] immature Uma notata at the Glamis Store after lunch, then released them in the dunes as we drove through to Calexico. I wanted to check some roads in that area to see if they might yield some Phrynosoma m'calli. Gravel trucks make collecting on the Glamis-Brawley road rather hazardous, so I am looking for a place that has these animals, but no gravel trucks. We drove over highway 98 from a point 11 miles east of Calexico to 26 miles east, but the terrain doesn't seem sandy enough to support a large population of P. m'calli. None were seen, even though we drove between 5 & 10 mph. Another road also was checked. This is south of the All-American Canal, & is the remains of the old Yuma-El Centro Highway. We drove 8 miles of this road without seeing any P. m'calli either. Again, it appeared to be too gravelly for good P. m'calli country. Then we drove across the Algadones Dunes on Highway 80. Thunder showers could be seen all

Aug. 21 Glamis area, Imperial Co., Calif.

around us by this time. We decided we would return to the Glamis-Brawley Road to try to get some P. m'calli this trip, so we took the Ogilby-Glamis Road. There had been very recent rains east of us, so the road was under considerable water in places from flash floods. Even though the road is dirt, & the water was rather deep in places (~2 feet), we managed to drive through without difficulty by using the 4-wheel drive. At one place we saw an adult Crotalus cerastes swim across the road and climb up on dry ground on the other side. We eventually reached Glamis again and camped for the night on top of the big dune where we had spent the previous night. The maximum temp. today was 113°F. (with a humidity to match!). The minimum temp. tonight was 84°F. We drove 154 miles today, and although we saw lots of rain falling in the distance, we didn't have any rain fall where we were.

Aug. 22 We arose at 0545 & ate breakfast. Then we drove the road,

Mayhew
1961

Aug. 22 Glamis area, Imperial Co., Calif. looking for Phrynosoma m'calli, from 0700 to 1120. We were sprinkled on occasionally, & clouds were quite thick all around, so the temperatures of soil & air didn't rise very rapidly. Therefore, P. m'calli were active later than usual.

We returned to UCR at 1550 with the following 32 animals of 8 species (11 Uma notata marked & released):

Sceloporus magister – 1 (♂)
Dipsosaurus dorsalis – 4
Phrynosoma m'calli – 8 (4 juv., 4 ad.)
Uma notata – 12 (6 ad., 6 juv.)
Urosaurus graciosa – 4
Crotaphytus wislizeni – 1 (♀)
Coleonyx variegatus – 1 (♂)
Callisaurus draconoides – 1 (♂)

We have now collected 150 Phrynosoma m'calli (including DOR's seen) in 1961 on the 7 miles of road between the Highline & Coachella Canals (121 live, 29 DOR). During the past 3 months (June, July & august) we have seen DOR or captured live 114 P. m'calli on the same stretch of road (102 live, 12 DOR). I am convinced they are not rare animals. We drove 193 miles today, 519 miles on the entire trip.

Sept. 8 UCR, Riverside Co., Calif.

This morning I shipped the following animals to Calvin De Witt at the University of Michigan:

1 *Uma inornata* 1 *Urosaurus graciosus*
1 *Uma notata*
1 *Uma scoparia*
1 *Callisaurus draconoides*
1 *Phrynosoma coronatum*
1 *Phrynosoma m'calli*

These are animals I promised him earlier for an experiment he is conducting. Unfortunately, these are all iguanids, but perhaps I can send some specimens of other families later.

Sept. 11 Glamis area, Imperial Co., Calif.

Walt Moberly & I left UCR at 1200 for Glamis as our first stop on the September collecting trip. We reached the Hiline Canal east of Brawley at 1540 and immediately began looking for *Phrynosoma m'calli* along the road. At this time the air temp. (36") was 38.8°C. There was no wind, but it was about 30% overcast (thunderheads over the Colorado River & Sierra Juarez). We made one pass through to the Coachella Canal before sundown. We quit at 1750 (sundown at 1755).

Sept. 11 Glamis area, Imperial Co., Calif.

We caught 6 P. m'calli on this pass (1 ad ♀, 2 ad? ♂, 3 juv. ♀), as well as 1 juv. Uma notata, 1 ad ♂ Uma notata, & 1 ad ♀ Uta stansburiana. We began night collecting at 1900, & quit for the night at 2100. We caught only 2 Coleonyx variegatus (1 ad ♂, 1 ad ♀). Maximum temp. today was 106°F; Minimum temp. tonight was 80°F. We camped in a gravel pit 2 miles east of Glamis because the wind was blowing sand on top of the large dune where we usually camp.

Sept. 12 We arose at 0630. We looked for lizards in the dunes from 0730 to 1030. Very few adult Uma notata were seen during this period. 3 ad ♂ & 2 ad ♀ were caught. The remainder of this species caught this morning were immature and juvenal. 11 Urosaurus graciosa were captured during the same period. One baby Crotalus cerastes was seen and the tracks of another juvenal were observed this morning. The middle of the day was spent in the Glamis store and exploring the dry lake-bed on the east side of the dunes about 6 miles north of Glamis. Grass

Mayhew
1961

Sept. 12 Glamis area, Imperial Co., Calif.

was waist high and very dense in spots. It is a much more lush spot than one would imagine from viewing it from the Amos-Glamis road. One Uma notata was caught on the dunes there, and a couple of others were seen. A thunderstorm developed over the Chocolate Mts. about 1500, and slowly moved toward Glamis. We returned to the dunes at 1600 before the storm struck Glamis. We made one pass for P. m'calli from 1640 to 1800, but saw no animals. It sprinkled part of this time, & dust blew part of the time. We dug out 3 ad. Uma notata & 1 juv. after the rain. Only a trace fell at our regular collecting site, but 0.25" of rain fell in our rain gauge at the Glamis store. We quit looking for diurnal reptiles at 1820. At 1930 we drove along the Amos-Glamis road to see if we could catch any of the so-called "frogs" the natives had told us come out after such a rain. We caught 1 in the road where the creeks overflowed into the road from the rain in the Chocolates. This was less than 1 mile north of Glamis. Some had

Sept. 12

Glamis area, Imperial Co., Calif.

been heard about 100 yards away from the Glamis store (on both sides of the store), but we had been unable to catch any of them. Later we caught 2 in a flowing creek about 3 miles north of Glamis. Several others were heard, but couldn't be located. These animals appear to be some species of *Scaphiopus* that emerge when rains in the Chocolates cause these streams to flow. We also collected 7 *Coleonyx variegatus* at this time. In each case, the animal was on a wet spot on the road (6 on dirt, 1 on pavement) that had been left by the rain (pavement) or by the receding waters of the flash flood (dirt). We quit collecting at 2240. Maximum temp. today was 108°F., minimum temp. tonight was 76°F.

Turned out to be *Scaphiopus couchi*.

Sept. 13

We arose at 0615. We began looking for lizards at 0720. We caught 4 *Uma notata*, then began looking for *Phrynosoma m'calli* along the road. We looked for *P. m'calli* from 0745 to 1105. There was a great deal of overcast this morning, so the temp. remained rather low for some time.

Sept. 13

Glamis area, Imperial Co., Calif.

We saw only 1 adult Dipsosaurus dorsalis during our entire stay in this region this time. We caught 1 juvenal member of this species. We left Glamis at 1200 and headed for Dale Dry Lake after our soil sample.

Dale Dry Lake, San Bernardino Co., Calif.

We reached Dale about 1800, then took our soil sample. The maximum temp. today was 97°F., minimum temp. was 74°F. There appears to have been rain here since our last trip out, since the sand is damp deeper than last month (to 24"). The Larrea divaricata looks quite green & there are several plants in bloom at Dale now: Dalea emoryi, Franseria dumosa, Larrea divaricata (some), Hilaria rigida, Coldenia plicata, Petalonyx thurberi, Pectis papposa, Encelia frutescens.

Sept. 14

We arose at 0615 and checked the traps in the wash. One set of Crotalus cerastes tracks were seen here. Then we looked for lizards from 0755 to 1120. A 21 inch Crotalus cerastes was seen at 0800 in broken shade beneath Larrea divaricata. It had been coiled in the sand about

Sept. 14

Dale Dry Lake, San Bernardino Co., Calif.
15 feet north of this bush at the east side of some Hilaria rigida. I took some pictures of it. a toe-clipped Uma scoparia (in B24) was noosed about 400 yards west of the release point. 3 toes have been clipped. 2 Chionactis occipitalis remains, 1 large Uma scoparia remains, 10 live scorpions (large) & 1 live juvenal scorpion, as well as the remains of several others were taken from our traps, along with numerous beetles. Troglodemus c. mayhewi & Sapinus mayhewi were found for the 1st time since last December. a number of ~~[illegible]~~ Pelecyphorus (?) also were found for the first time since last winter. The tracks of a baby Crotalus cerastes were seen. a Urosaurus graciosa was seen in Dalea spinosa, but couldn't be captured. Uma scoparia #124 was found in trap #1 (in B76). We learned there had been 0.75" of rain on Aug. 30th. We left the area at 1200. Plants seen in bloom in the 29 Palms area were: Cassia armata, Pectis papposa, Palafoxia linearis, Datura metaloides, and some I didn't recognize.

Sept. 14 5 mi. N.W. of 1000 Palms, Riverside Co., Calif.

We stopped for a while at Granddaddy Dune to get our last soil sample, & try to catch some *Uma inornata*. There were numerous tracks about, but we saw very few lizards. We were able to capture 5 of them before we left the area at 1630. We reached UCR at 1735, after driving 611 miles this trip. We brought back 122 ~~animals~~ reptiles of 11 species, as follows (3 amphibians, 1 species):

Dipsosaurus dorsalis – 7 (imm)
Uma inornata – 5 (2 ad, 3 imm)
Uma notata – 42 (9 ad, 33 imm)
Uma scoparia – 26 (10 ad, 16 imm)
Phrynosoma m'calli – 13 (6 ad, 7 imm)
Phrynosoma platyrhinos – 2 (1 ad, 1 imm)
Urosaurus graciosa – 13 (all ad)
Callisaurus draconoides – 3 (all ad)
Uta stansburiana – 1 (ad)
Cnemidophorus tigris – 1 (ad)
Coleonyx variegatus – 9 (all ad)
Scaphiopus couchii – 3 (all ad)

Rudy Ruibal positively identified the amphibians caught near Glamis as *Scaphiopus couchii*. He says they have never been reported in Calif. before. Arizona is the nearest they have been found previously.

Sept. 16 Palm Springs, Riverside Co., Calif.

Walt Moberly, Betty Aaron, Ed Eberle, Bill Truesdell & I left UCR at 0630. We looked for lizards from 0720 to 14:00. No reptiles were seen along Varner Road from Garnet to 1000 Palms, except for a couple of young Uma inornata. Then we drove through Palm Springs Panorama to Vista Chino Drive. Walt & Betty worked near Vista Chino while Ed, Bill & I worked near Ranch Country Club. We found one Crotalus cerastes adult exposed on the surface in the shade of a can which rested in the shade of Dalea schotti. I stepped within a foot of it before I saw it. It never moved nor rattled, however, until we dragged it out into the open. This animal was seen at 1045 when the air temp. (36") was 35.0°C., soil surface temp. at the spot where the snake was located was 32.0°C. At 1100 we found another Crotalus cerastes adult in the entrance to a burrow in the shade of Franseria dumosa. The first C. cerastes was 19½" long and had 6 rattles, the second was 18" long & had 10 rattles. The longer animal contained a Dipodomys

Sept. 16

Palm Springs, Riverside Co., Calif.

deserti in its gut. We looked for animals until the wind came up, which seemed to stop reptile activity. We reached UCR at 1505 after driving 119 miles today, and 730 miles this week. We brought back 54 animals of 6 species, as follows:

Dipsosaurus dorsalis - 30 (9 ad, 21 immature)
Crotalus cerastes - 2 (ad)
Uma inornata - 17 (8 ad, 9 imm.)
Phrynosoma m'calli - 2 (ad)
Urosaurus graciosa - 2 (ad)
Callisaurus draconoides - 1 (ad)

Some ~~pelecyphorus (sp?)~~ Pelecyphorus were collected also. This was the first time we had seen this particular group of beetles. Two were collected beneath Larrea divaricata, about ½ dozen were collected beneath a composite that looks like a juniper. (Lepidospartum sp.)

The September collecting trips yielded 176 animals of 12 species, as follows:

Crotalus cerastes - 2 (ad.) (P.S.)
Dipsosaurus dorsalis - 37 (9 ad, 28 immature)
Uma inornata - 22 (10 ad, 12 imm.)
Uma notata - 42 (9 ad, 33 imm.)
Uma scoparia - 26 (10 ad, 16 imm.)
Cnemidophorus tigris - 1 (ad)

Sept. 16 Palm Springs, Riverside Co., Calif.

Phrynosoma platyrhinos - 2 (1 ad, 1 imm.)
Phrynosoma m'calli - 15 (8 ad, 7 imm.)
Urosaurus graciosa - 15 (ad)
Callisaurus draconoides - 4 (ad)
Uta stansburiana - 1 (ad)
Coleonyx variegatus - 9 (ad)

Sept. 18 UCR, Riverside Co., Calif.

Dick Tedford has just returned from a summer in Australia. He brought back 2 *Amphibolurus pictus* for me in his pocket. They are both males. They were collected in late August on Lower Cooper's Creek, 16 miles west of Etadunna Station (on the Birdsville track) in South Australia. They were collected from sand ridges at an elevation of about 100 feet. This location is roughly 20 miles east of Lake Eyre. They dig shallow burrows in the sand at the bases of plants. He captured these by digging them out by hand. He says *Amphibolurus barbatus* and *A. reticulatus* also occur in these sand ridges in large numbers, but *A. reticulatus* seems to prefer rockier country. These animals are being kept in a cage with *Uma* to compare them.

Sept. 22 UCR, Riverside Co., Calif.

Today I set up some lizard experiments that I plan to follow this winter in the laboratory. I also placed some animals in outdoor cage #2, and these animals will be followed through the next breeding season. I hope some of these outdoor animals (Uma inornata, U. notata & U. scoparia) will successfully produce young in the outdoor cage.

I shall be running 3 experiments in the lab. Cages 1 & 2 contain Phrynosoma m'calli and 1 Phrynosoma platyrhinos. Cage #1 will have the lights turned off for the winter on October 1st, while cage #2 will continue to receive 11 hours of light per day. This experiment is intended to determine whether these animals must hibernate or not. The arrangement of these animals is recorded in the species field notes. The arrangement of animals in the other experiments also are described in the field notes of the species involved (Dipsosaurus dorsalis, Uma inornata, U. notata, & U. scoparia). Cage #4 contains almost adult U. inornata, U. notata, & U. scoparia that are now on 24 hours of light per day. Both ♂♂

Sept. 22 **UCR, Riverside Co., Calif.**

and ♀♀ are involved. I am trying to bring them into breeding condition during the winter. 10 *U. inornata* (2 ♂, 8 ♀), 14 *U. notata* (4 ♂, 10 ♀), and 15 *U. scoparia* are involved (6 ♂, 9 ♀ *U. scoparia*).

Cage #3 contains 11 juvenal *Dipsosaurus dorsalis*, 4 young *Uma inornata*, 11 *Uma notata*, and 10 *Uma scoparia*. These are control animals for a growth experiment involving light. Cage #5 contains 12 young *Dipsosaurus dorsalis*, 4 *Uma inornata*, 11 *Uma notata*, and 10 *Uma scoparia*. These are the experimental animals. Cage #3 will receive 11 hours of light per day, as in the past. Cage #5 will receive 24 hours of light per day, beginning today.

The other 2 cages (#1 and 2) contain *Phrynosoma m'calli* for a hibernation experiment, as mentioned earlier.

Each of the indoor cages will have one 250-watt infra-red lamp shining at each end of the cage (except cage #1, which will have no lights on after October). On February 15th, I plan to again turn on the lights in cage #1 (one 250-watt lamp at each end).

Sept. 26 — Val Verde, Riverside Co., Calif.

I went out looking for juvenal *Sceloporus orcutti*. I don't think any broods were successful this year because of the extreme aridity (2.95 inches of rain from July 1, 1960 to June 30, 1961). However, I wanted to check in the field to be sure. I saw 2 adults and 2 large immatures, but no juvenals. I left UCR at 1100 and returned at 1400, so I was out at a rather poor time of the day. However, some of the larger animals were out, so small ones should have been, if any were around. 3 adult *Sceloporus occidentalis* and 9 adult *Uta stansburiana* also were seen at this time. I was able to catch 2 of the *Sceloporus occidentalis* and 5 *Uta stansburiana*, but no *Sceloporus orcutti*.

Sept. 27 — Kenneth Evans & I left UCR at 0830 to look for juvenal *Sceloporus orcutti*. We looked for lizards from 0845 to 1110. During this time we saw 13 *Sceloporus orcutti*, 1 *Sceloporus occidentalis*, and numerous *Uta stansburiana* (at least 2 dozen). Only 2 juvenal *Sceloporus orcutti* were seen, and no juvenals of the other 2 species. We returned to UCR at 1130.

Oct. 6 Glamis area, Imperial Co., Calif.

Bill Truesdell, Ed Eberle, Walt Moberly & I left UCR at 1420 for our monthly collecting trip. We reached the Highline Canal at 1745, and we began to night collect immediately. We caught 1 ♂ *Coleonyx variegatus* and saw 5 *Crotalus cerastes* (2 adult) before we quit for the night at 2140. We drove north on the Glamis Amos Road part of this time to see if any *Coleonyx* would be out on the dirt road the way they were last month right after the rain. None were seen here. We drove 52 miles night-collecting. We camped in a gravel pit east of Glamis because there was too much wind to camp on top of the big dune.

Oct. 7 We arose at 0615 and ate breakfast. Walt & Ed drove the road looking for *Phrynosoma m'calli* while Bill & I worked in the dunes, catching *Uma notata*. Walt & Ed drove the road from 0735 to 1045, then ~~they~~ worked some dunes also. Bill & I worked the dunes from 0730 to 1300. Walt & Ed caught 5 *Phrynosoma m'calli* (3 adult, 2 juvenals), 2 *Urosaurus graciosa* (ad.), 2 juvenal *Dipsosaurus dorsalis*, and 11 *Uma notata*. During this time, Bill

Oct. 7

Glamis area, Imperial Co., Calif.

and I caught 6 *Urosaurus graciosa* and 45 *Uma notata*. Thus, during the morning we combined to catch:

5 *Phrynosoma m'calli*
8 *Urosaurus graciosa*
2 *Dipsosaurus dorsalis*
56 *Uma notata*
71 (4 species)

The air temp. (36") when we quit (1300) was 35.4°C. The wind began to blow about 1200, and by the time Bill & I reached the Travelall, the wind was blowing rather hard.

Then we drove to the S.P. railroad siding at Ruthven (5 miles south of Glamis) to check on a reported lake site near the dunes. This potential lake isn't nearly as nice as the one we visited ~ 5 miles north of Glamis last month. We caught 2 juvenal *Callisaurus draconoides* & 1 adult of this species, as well as 1 ad. *Uma notata* at this site before the wind-blown sand chased us out of the area. We left this site at 1430, and returned to the road through the dunes. The sand was blowing hard by this time, but we saw a *Uma notata* in the open, so we stopped to catch it.

Oct. 7

Glamis area, Imperial Co., Calif.

Before we finished, we had captured 5 Uma at this location. We looked for Phrynosoma m'calli along the road from 1600 to 1630. The sand was blowing so hard, however, that we weren't surprised when we didn't find any. The road was hard to see in spots because of the moving sand. We night collected on the road from 1845 to 1940 (16 miles) without seeing any reptiles. The wind was still blowing quite hard during this period. We camped in the same gravel pit at 1940. Today we caught 80 animals, as follows:

Dipsosaurus - 2
Urosaurus - 8
Phrynosoma m'calli - 5
Callisaurus - 3
Uma notata - 62

Oct. 8

We arose at 0800. The wind was still blowing hard, and it was rather cold, so we simply stayed in our sleeping bags. We weighed, measured, & toe-clipped 2 juvenal Urosaurus graciosa and 27 Uma notata for release at our usual collecting site. Then we looked for marked lizards ~~at~~ at this site from 1015 to 1150. Two marked ones were captured, as well as 16 unmarked ones. These animals were

Oct. 8

Glamis area, Imperial Co., Calif.
measured, toe-clipped and released. Four adult *Uma notata* and 2 adult *Urosaurus graciosa* were also caught & returned to the laboratory. We began looking for *Phrynosoma m'calli* along the road at 1200, and continued to 1230. However, we weren't surprised to find none. The maximum temperature (36") today was 20.0°C., and a strong wind blew all day.

Several species of plants were in bloom at this time in the Glamis area. The most obvious ones were:

Helianthus tephrodes (1st blooms for some mo.)
Palafoxia linearis (plants in fine shape now)
Mentzelia
Petalonyx thurberi
Eriogonum deserticola
Dalea emoryi
Pectis papposa
Chilopsis linearis
Croton calif.

We reached UCR at 1735 after a 511 mile trip (total). We caught 105 animals of 6 species. Of these, 47 were marked and released (2 *Urosaurus graciosa*, 45 *Uma notata*). Ed Eberle took 6♀ and 3♂ *Uma notata* for his senior thesis project. The rest were brought to the laboratory.

Oct. 8 Glamis area, Imperial Co., Calif.

Totals caught were:

Uma notata – 84

Callisaurus draconoides – 3

Coleonyx variegatus – 1

Phrynosoma m'calli – 5

Dipsosaurus dorsalis – 2

Urosaurus graciosa – 10

(6 species) 105

Oct. 10 Palm Springs area, Riverside Co., Calif.

Walt Moberly & I left UCR at 0810 for our monthly collecting trip. We reached Granddaddy Dune at 0930 & began to look for lizards at 0945. We searched this site until 1200, at which time we collected our soil sample. There was no wind at all until about 1100, when a very light SE breeze arose. This was one of the nicest days, weatherwise, I've ever spent at this location. Animals were not too abundant, but we caught a few. Of those captured, (all Uma inornata) 6 were toe-clipped & released, 1 marked animal was caught & released, & 8 were returned to the laboratory, making a total of 15 animals caught at this site. We then drove to Palm Springs Panorama & looked for lizards. Although the weather was still very nice, few animals were to be seen at this time of day (1230+).

Oct. 10 — Palm Springs area, Riverside Co., Calif.

We looked for lizards from then to 1500, but saw very few. After leaving the Panorama, we went to the Ranch Country Club by way of Vista Chino. We captured 6 more *Uma inornata* and one adult ♂ *Dipsosaurus dorsalis*. This is the first adult of this species that we have captured in October. Usually all the adults are hibernating by this time. We saw tracks of several young *Dipsosaurus*, but we could find no young animals of this species.

We returned to UCR at 1610 after a trip of 119 miles today. We caught a total of [redacted] 21 *Uma inornata*, 7 of which were released, and 1 *Dipsosaurus dorsalis*. We saw 2 *Callisaurus draconoides*, but were unable to capture either of them.

Oct. 12 — Dale Dry Lake, San Bernardino Co., Calif.

Walt Moberly & I left UCR at 0720 for our monthly collecting trip. We looked for lizards from 0920 to 1230 in the vicinity of the old pump house about 2 miles west of the Iron Age Mine Road. Adult animals were reasonably abundant in this location. (*Uma scoparia*) However, young animals were very scarce — I saw one juvenal on

Mayhew 1961

Oct. 12 Dale Dry Lake, San Bernardino Co., Calif.

the entire trip (Uma scoparia). A few large immature Uma scoparia and Dipsosaurus dorsalis were captured. At 1230 we drove 2 miles east of Iron Age Mine Road to check the traps we have set near a gravel pit. Three immature Uma scoparia were taken from these traps, as well as a number of beetles. An adult ♀ Crotaphytus wislizeni was found in the act of eating an adult ♂ Uma scoparia. Both animals were collected. Then we checked the traps near the Iron Age Mine Road & gathered the soil sample. We marked & released 5 young animals, & measured 3 toe-clipped animals that were recaptured. We brought 25 Uma scoparia and 5 Dipsosaurus dorsalis back to the laboratory with us. The Dipsosaurus all were young animals. No adult Dipsosaurus were even seen. All the Uma scoparia that were brought back were adults or nearly adults. We were surprised to find the Uma in such fine shape this month. They were fat as butterballs, probably due to the rains the past few months. We reached UCR at 1700 after a trip of 217 miles.

Oct. 12 Dale Dry Lake, San Bernardino Co., Calif.

Plants that were seen in bloom today were: Abronia villosa, Pectis papposa, Palafoxia linearis, Petalonyx thurberi, Dalea emoryi. Franseria dumosa is now in seed.

In all, we captured 39 animals today, 7 of which were marked & released. We brought the following back to the laboratory:

Uma scoparia - 25 (adult or adult?)
Dipsosaurus dorsalis - 5 (immature)
Cnemidophorus tigris - 1 (adult)
Crotaphytus wislizeni - 1 (adult)

Oct. 20 UCR, Riverside Co., Calif.

All the animals in the indoor cages have developed noticeably reduced appetites. Even those in the 24 hour cages eat relatively little compared to what they were a week ago. A few of the Phrynosoma m'calli have become quite sluggish, but most of the others seem about as alert as ever.

Nov. 2 Val Verde, Riverside Co., Calif.

I left UCR at 1315 to see if Sceloporus orcutti was hibernating yet. Between 1330 and 1515 I saw 2 adults, 1 immature, and 3 juveniles. The time was spent along Cajalco Road, Wood Road, & Markham Road. In addition, 9 Uta stansburiana and 1 Sceloporus occidentalis were seen during the same period. I caught only 2 of the

Nov. 2 <u>Val Verde, Riverside Co., Calif.</u>
juvenal *S. orcutti*. They were measured, their temperatures recorded, & they were brought back to be released beside LSB on the UCR campus. The air temp. (1 meter) varied from 19.0°C. (when I reached the site) to 17.2°C. (when I left). *S. orcutti* were seen at both air temp. I returned to UCR at 1530 (left Val Verde at 1515) after a trip of 30 miles.

Nov. 3 <u>UCR, Riverside Co., Calif.</u>
None of the *Phrynosoma m'calli* show any appreciable appetite any longer, in contrast to the 3 species of *Uma* & *Dipsosaurus dorsalis* that are being held in similar cages under similar conditions nearby.

The *Uma inornata* in the 24 hour incubation cage were moved into the 24 hour growth cage with *Dipsosaurus dorsalis* & a few young *Uma* spp. Otherwise, I couldn't tell whether *U. inornata* laid any eggs or not. Temperature conditions are very similar in the 2 cages (see below), & lights are on for 24 hours in both cages. Therefore, these animals should develop in the same manner. It also reduces the number of animals in the *Uma* cage now ~~only~~ to 29 (15 *U. notata*, 14 *U. scoparia*).

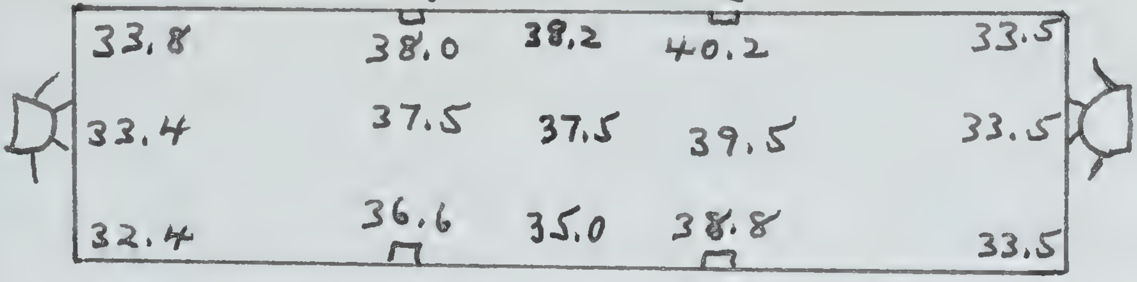
Mayhew
1961

Nov. 3

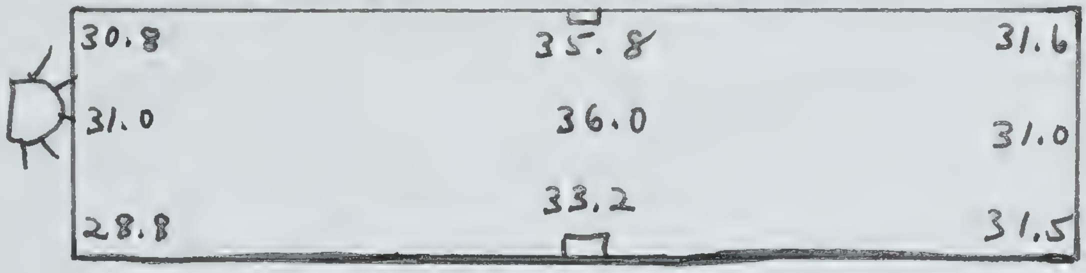
UCR, Riverside Co., Calif.

Soil surface temperatures in these 2 cages are as follows (°C.):

24-hour growth cage:



24-hour incubation cage:



All animals in the incubation cage were checked for length growth & for breeding colors. (Growth data recorded in the animal's individual record sheets). Breeding colors data follow:

Uma inornata

No.	Sex	S-V	Breeding colors present	Remarks
9	♀	68	none	no eggs
12	♂	69	none	no enlarged hemipenes
14	♀	62	slight	no eggs
16	♂	74	slight	no enl. hemip.
18	♀	62	none	no eggs
21	♀	60	slight	" "
22	♀	62	slight	" "
27	♀	73	none	" "

No eggs could be felt in the body of any ♀ of this species.

Mayhew
1961

Nov. 3

UCR, Riverside Co., Calif.

~~Uma~~ Uma notata

no.	sex	s-v	Breeding colors present	Remarks
3	♀	64	yes	no eggs
9	♀	70	none	1 large egg (ovary)
13	♀	74	slight	no eggs
14	♂	72	"	enlarged hemipenes
16	♀	66	"	1 large egg (ovary)
17	♀	69	none	no eggs
18	♀	66	"	no eggs
22	♀	65	slight	" "
25	♂	72	yes	enlarged hemipenes
26	♀	71	slight	no eggs
27	♀	64	"	(very thin) no eggs
29	♀	71	"	no eggs
31	♂	78	"	no enlarged hemip.
47	♀	69	"	no eggs
49	♀	66	"	(very thin) no eggs
52	♂	75	none	no enlarged hemip.

One of these animals laid an egg today in the cage on top of the sand. Since only #3 Uma notata, of all the ♀ present in the cage, is in breeding colors, it seems quite ~~probable~~ possible that she is responsible for the egg. It was dessicated when I found it, so I am unable to tell whether it was fertile or not. Since one of the ♂ is also in breeding colors, mating may have occurred.

Nov. 3

UCR, Riverside Co., Calif.

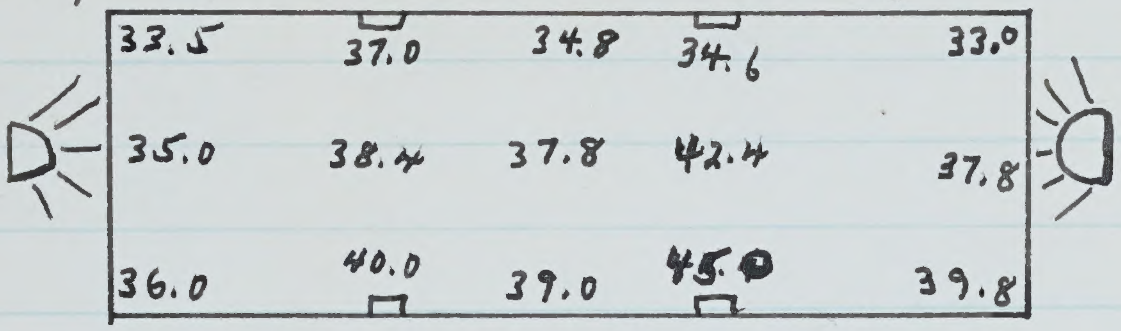
Uma scoparia

No.	Sex	S-V	Breeding colors present	Remarks
16	♂	65	none	no enlarged hemipenes
20	♀	67	"	no eggs
22	♀	62	"	" "
23	♂	65	"	no enl. hemip.
24	♀	63	"	no eggs
25	♀	60	"	" "
26	♀	62	"	" "
28	♂	60	"	no enl. hemip.
31	♀	63	"	no eggs
32	♀	61	"	" "
33	♂	63	"	no enl. hemip.
124	♀	58	"	no eggs
172	♀	59	"	" "
192 (+20)	♂	64	"	no enl. hemip.

Val Verde, Riverside Co., Calif.

I left UCR at 1230 to look for more *Sceloporus orcutti*, reaching the collecting site at 1300 (corner of Markham and Brown Roads). From then until I left at 1445, I saw 7 *Sceloporus orcutti* (1 ad ♀, 2 immatures, & 4 juvenals) and 4 *Uta stansburiana*. The air temp. (1 meter) ranged from 23.8°C at 1300 to 23.0°C. at 1445. Two animals were captured, one of which was released at the capture site. The sky was sunny & almost no breeze was blowing. I reached UCR at 1505 after a 23 mile trip.

Nov. 16

UCR, Riverside Co., Calif.

Temperatures in cage # 3 (11 hour growth animals) was checked this afternoon shortly before the lights went out, in order to see what the maximum temperatures are in this cage. The results: